

Mineral Industry Surveys

For information, contact:

Daniel Edelstein, Copper Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4978, Fax: (703) 648-7757
E-mail: dedelste@usgs.gov

Hema Edupuganti (Data)
Telephone: (703) 648-7951
Fax: (703) 648-8975
E-mail: hedupuganti@usgs.gov

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

COPPER IN NOVEMBER 2003

Average daily copper mine and refinery production in November declined slightly, according to data compiled by the U.S. Geological Survey. Average daily consumption of refined copper declined by about 1.5% from the 17-month high level experienced in October owing to a 3.3% drop in wire-rod mill copper use and a nearly commensurate decline in wire-rod shipments. Consumption of refined copper at brass mills rose slightly. Brass mill production and shipments declined, however, owing to a sharp drop in scrap consumption. The consumption of refined copper at the expense of copper scrap is indicative of the tight scrap supply and narrow discounts reported by industry. According to the Institute of Scrap Recycling Industries (2003), copper scrap remained difficult to source. The consumer buying price for bare bright copper was reported to be level with the spot COMEX price for refined copper, and the price for burnt No. 1 scrap and No. 2 scrap were reportedly discounted by only 3 cents per pound and 9 to 10 cents per pound, respectively.

Despite a temporary setback at the end of November, copper prices continued the sharp upward trend that started at the beginning of October. The spot COMEX price averaged \$0.93 per pound in November, rose to an average of \$1.00 in December, and peaked at yearend at \$1.04 per pound. Copper prices responded sharply in mid-December to the report of a second landslide at Freeport McMoRan Copper & Gold Inc.'s Grasberg Mine in Indonesia. The slide was within the same work zone that had killed eight miners in October. (See Copper in September 2003.) Following the second landslide, Freeport declared a *force majeure* on its copper concentrate delivery contracts and announced that it would need to reevaluate its mine plan and at least temporarily abandon mining in the high-grade ore zone where the slides had occurred (American Metal Market, 2003). Subsequently, Freeport announced that it would accelerate the removal of waste material from its south wall to restore access to the higher grade areas in the pit affected by the landslides. Therefore, its projected production for 2004 was revised downward to 454,000 t from its previous estimate of 635,000 t (Freeport McMoRan Copper & Gold Inc., 2004).

Construction of a new plant employing biotechnology to recover copper sulfide was nearing completion in Bisbee, AZ. The \$1.9-million plant will be operated by Copreco LLC, a joint venture company between BioteQ Environmental Technologies Inc. (Vancouver, British Columbia, Canada) and Phelps Dodge Mining Company. The company will process leach streams coming from the large, low-grade, #7 ore stockpile left from Phelps Dodge's old Copper Queen Mine. Currently these leach streams are being processed over scrap iron to produce cement copper. The new facility will use a "BioSulfide Process" that employs anaerobic bacteria in the presence of a reductant to generate hydrogen sulfide that will be mixed with the copper sulfate leach solution from the dumps. The copper will precipitate as copper sulfide, which will be thickened, filtered, and sent to Phelps Dodge's Miami, AZ, smelter for processing. The new plant is expected to begin production in January and is expected to produce 1,360 tons per year of copper in sulfide concentrate (Lawrence, 2003¹).

On December 4, BHP Billiton announced that it had entered into agreements to sell its 33.6% interest in the Highland Valley Mine in British Columbia, Canada, and its 100% interest in the Robinson Mine in Nevada to Vancouver-based Quadra Mining Ltd., for \$73 million and \$18 million, respectively. Both transactions were subject to various conditions including the raising of the required funds (BHP Billiton, 2003). Quadra Mining was expected to launch an initial public offering early in 2004 with hopes of raising the \$133 million it needs to complete the purchases and to bring Robinson back on line. It hoped to be operational by the end of 2004 so as to take advantage of current high copper and gold prices. According to the company, at full production, Robinson, which last produced copper concentrate in 1999, could process 38,000 tons per day of ore grading an average of 0.7% copper for an anticipated mine life of 8 years. Before production can proceed, however, the mill will need to be rebuilt as equipment was sold to BHP Billiton's Tintaya operation in Peru (Brooks, 2003).

¹A reference that includes a section mark (§) is found in the Internet Reference Cited section.

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TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES¹

(Metric tons, unless otherwise specified)

	Source table ²	2002 ^P	2003		
			October	November	January - November
Production:					
Primary:					
Mine, recoverable	(2)	1,140,000	95,500 ^r	91,700	1,020,000
Refinery:					
Electrolytic:					
Domestic	(4)	801,000	56,200	52,900	617,000
Foreign	(4)	40,000 ³	W	W	W
Electrowon	(4)	601,000	49,600 ^r	46,800	542,000
Total	(4)	1,440,000	106,000 ^r	99,800	1,160,000
Secondary recoverable copper:					
Refineries	(5)	69,900	4,490	4,440	49,600
Ingot makers ⁴	(5)	122,000	10,200	10,200	112,000
Brass and wire-rod mills	(5)	735,000	58,600	53,200	620,000
Foundries, et. ⁴	(5)	64,800	5,400	5,400	59,400
Smelter, total	(3)	683,000	44,100	47,800	491,000
Consumption:					
Apparent	(8)	2,520,000 ^r	246,000	NA	NA
Refined (reported)	(7)	2,360,000	211,000	201,000	2,120,000
Purchased copper-base scrap	(9)	1,260,000	99,500	92,200	1,060,000
Stocks at end of period:					
Total refined	(11)	1,030,000	693,000	671,000	XX
Blister, etc.	(11)	44,400	51,700	57,500	XX
Prices:					
U.S. producer cathode (cents per pound) ⁵	(12)	75.805	92.29	96.867	83.293
Imports:⁶					
Ores and concentrates ⁷	(14)	71,900	14,300	NA	NA
Refined	(14)	927,000	82,000	NA	NA
Exports:⁶					
Ores and concentrates ⁷	(15)	23,000	153	NA	NA
Refined	(15)	26,600	4,640	NA	NA

^PPreliminary. ^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Domestic." XX Not applicable.

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

²Numbers in parentheses refer to the significant tables where these data are located.

³January-April only; excludes withheld data.

⁴Monthly data and 2002 cumulative data estimated based on 2001 monthly average.

⁵Source: Platts Metals Week.

⁶Source: U.S. Census Bureau.

⁷Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES¹

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others ²	Total	Electrowon	Concentrates ³	Total
2002: ^P						
January - November	701,000 ^r	345,000	1,050,000 ^r	550,000 ^r	509,000	1,060,000 ^r
November	62,500	32,800	95,300	47,100	49,400	96,500
December	66,500	30,500	96,900	50,500	47,700	98,200
Year	767,000	375,000	1,140,000	601,000	557,000	1,160,000
2003:						
January	62,400	28,600	91,100	49,900	42,300	92,200
February	55,800	26,700	82,500	45,900	37,600	83,500
March	64,100	33,300	97,300	52,000	46,600	98,500
April	59,800	27,600	87,400	47,400	41,100	88,500
May	62,400	31,300	93,700	50,400	44,400	94,800
June	65,100	29,400	94,600	49,600	46,400	96,000
July	63,900	34,200	98,100	49,500	50,100	99,600
August	63,400	31,400	94,800	50,600	45,400	95,900
September	59,800	34,000	93,800	50,600	44,300	94,900
October	62,300 ^r	33,200 ^r	95,500 ^r	49,600 ^r	46,900	96,500 ^r
November	60,200	31,500	91,700	46,800	46,100	92,900
January - November	679,000	341,000	1,020,000	542,000	491,000	1,030,000

^PPreliminary. ^rRevised.

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

²Includes production from Idaho, Missouri, New Mexico, and Utah.

³Includes copper content of precipitates and other metal concentrates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN
THE UNITED STATES, BY SOURCE^{1,2}

(Metric tons, copper content)

Period	Anode production
2002: ^P	
January - November	627,000
November	57,500
December	56,500
Total	683,000
2003:	
January	54,200
February	42,300
March	35,700
April	29,700
May	46,000
June	49,700
July	46,600
August	49,200
September	46,000
October	44,100
November	47,800
January - November	491,000

^PPreliminary.

¹Includes blister, anode and copper from primary or secondary sources.

²Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY¹

(Metric tons)

Period	Primary materials				Scrap	Total refined
	Electrolytically refined ²		Electrowon	Total		
	Domestic ³	Foreign				
2002:^P						
January - November	737,000 ^r	40,000	550,000 ^r	1,330,000 ^r	66,000 ^r	1,390,000 ^r
November	67,900	W	47,100	115,000	5,120	120,000
December	64,600	W	50,500	115,000	3,930	119,000
Year	801,000	40,000 ³	601,000	1,440,000	70,000	1,510,000
2003:						
January	69,800	W	49,900	120,000	4,500	124,000
February	60,500	W	45,900	106,000	3,910	110,000
March	60,700	W	52,000	113,000	5,680	118,000
April	46,600	W	47,400	94,000	6,150	100,000
May	46,100	W	50,400	96,500	4,050	101,000
June	53,400	W	49,600	103,000	4,130	107,000
July	57,900	W	49,500	107,000	4,140	111,000
August	55,900	W	50,600	107,000	3,920	110,000
September	57,400	W	50,600	108,000	4,220	112,000
October	56,200	W	49,600 ^r	106,000 ^r	4,500	110,000 ^r
November	52,900	W	46,800	99,800	4,440	104,000
January - November	617,000	W	542,000	1,160,000	49,600	1,210,000

^PPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Domestic."

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

²Based on source of material at smelter level.

³January-April only; excludes withheld data.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP¹

(Metric tons, copper content)

Period	Refineries ²		Ingot makers ³		Brass and wire-rod mills		Foundries, etc. ³		Total ⁴
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2002:^P									
January - November ^r	34,500	31,500	25,400	86,400	659,000	17,600	21,800	37,700	914,000
November	2,110	3,010	2,310	7,850	54,500	2,110	1,980	3,420	77,300
December	1,980	1,950	2,310	7,850	56,900	1,110	1,980	3,420	77,500
Year	36,500	33,400	27,800	94,200	716,000	18,700	23,700	41,100	991,000
2003:									
January	1,410	3,080	2,310	7,850	63,000	1,470	1,980	3,420	84,500
February	1,210	2,700	2,310	7,850	54,200	1,270	1,980	3,420	74,900
March	1,340	4,340	2,310	7,850	55,400	732	1,980	3,420	77,400
April	1,340	4,810	2,310	7,850	53,100	1,380	1,980	3,420	76,200
May	1,340	2,710	2,310	7,850	54,000	1,310	1,980	3,420	75,000
June	1,340	2,790	2,310	7,850	56,000	1,200	1,980	3,420	76,900
July	1,340	2,800	2,310	7,850	52,200	1,140	1,980	3,420	73,000
August	1,340	2,580	2,310	7,850	54,100	996	1,980	3,420	74,600
September	1,340	2,880	2,310	7,850	55,400	1,370	1,980	3,420	76,500
October	1,340	3,160	2,310	7,850	57,200	1,360	1,980	3,420	78,600
November	1,340	3,100	2,310	7,850	52,000	1,200	1,980	3,420	73,200
January - November	14,600	34,900	25,400	86,400	606,000	13,400	21,800	37,700	841,000

^PPreliminary. ^rRevised.

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

²Electrolytically refined and fire-refined scrap based on source of material at smelter level.

³Monthly data and 2002 cumulative data estimated based on 2001 annual data.

⁴Does not include an estimate, based on reported 2001 data, of 3,190 tons per month from new scrap and 2,010 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES¹

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2002: ^P						
January - November	1,360,000 ^r	1,610,000	1,360,000 ^r	1,610,000	XX	XX
November	114,000	138,000	116,000	129,000	53,400	28,900
December	106,000	108,000	103,000	108,000	56,200	29,000
Year	1,470,000	1,720,000	1,460,000	1,720,000	XX	XX
2003:						
January	119,000	140,000	120,000	139,000	55,200	29,500
February	110,000	133,000	110,000	132,000	55,600	30,200
March	115,000	139,000	114,000	132,000	59,700	37,300
April	115,000	127,000	115,000	127,000	59,500	37,200
May	111,000	125,000	112,000	129,000	58,200	33,400
June	114,000	126,000	114,000	125,000	57,700	34,800
July	107,000	123,000	110,000	126,000	54,800	31,400
August	111,000	140,000	112,000	142,000	53,500	29,900
September	117,000	142,000	118,000	147,000	52,700	24,900
October	120,000	156,000	119,000	159,000	53,700	21,600
November	111,000	148,000	110,000	147,000	54,000	21,900
January - November	1,250,000	1,500,000	1,250,000	1,510,000	XX	XX

^PPreliminary. ^rRevised. XX Not applicable.

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

TABLE 7
CONSUMPTION OF REFINED COPPER¹

(Metric tons)

Period and item	Wire-rod mills	Brass mills	Other plants ²	Total
2002: ^P				
January - November ^r	1,600,000	552,000	54,500	2,210,000
November	142,000	46,300	4,950	193,000
December	113,000	40,600	4,950	159,000
Year	1,710,000	593,000	59,400	2,360,000
2003:				
January	137,000	47,200	4,950	189,000
February	140,000	49,600	4,950	195,000
March	142,000	50,000	4,950	197,000
April	129,000	49,500	4,950	184,000
May	133,000	49,900	4,950	188,000
June	130,000	50,400	4,950	185,000
July	122,000	49,500	4,950	176,000
August	143,000	46,800	4,950	195,000
September	143,000	47,400	4,950	195,000
October	157,000	48,900	4,950	211,000
November:				
Cathodes	147,000	33,900	1,140	182,000
Wire bars	--	--	(3)	(3)
Ingots and ingot bars	--	1,150	1,690	2,850
Cakes and slabs	--	(3)	(3)	(3)
Billets and other	W	14,100	2,120	16,200
Total	147,000	49,200	4,950	201,000
January - November	1,520,000	538,000	54,500	2,120,000

^PPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data included with "Cathodes." -- Zero.

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

²Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2001 annual data.

³Withheld to avoid disclosing company proprietary data; included with "Billets and others."

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER¹

(Metric tons)

Period	Refined copper production	Copper in old scrap ²	Refined general imports ³	Refined exports ³	Stock change during period	Apparent consumption
2002: ^P						
January - October	1,210,000	175,000 ^r	812,000 ^r	24,000 ^r	63,200 ^r	2,110,000 ^r
October	122,000	18,100	91,500	606	(14,300)	245,000
November	115,000	18,400	74,900	506	6,190	202,000
December	115,000	16,400	83,000	1,460	4,580	208,000
Year	1,440,000	210,000	970,000 ^r	26,000	74,000	2,520,000 ^r
2003:						
January	120,000	17,900	61,500	2,540	(23,300)	220,000
February	106,000	17,300	64,700	766	(69,200)	257,000
March	113,000	18,400	52,500	1,510	2,950	179,000
April	94,000	19,500	52,200	606	(571)	166,000
May	96,500	17,300	56,000	15,900	(70,600)	224,000
June	103,000	17,300	51,500	23,000	(59,200)	208,000
July	107,000	17,200	40,700	5,080	(36,300)	196,000
August	107,000	16,900	72,700	4,080	5,710	186,000
September	108,000	17,600	46,000	4,330	(29,200)	196,000
October	106,000 ^r	17,800	69,100	4,640	(57,800)	246,000
November	99,800	17,600	NA	NA	(22,000)	NA
January - October	1,060,000	177,000	567,000	62,500	-337,000	2,080,000

^PPreliminary. ^rRevised. NA Not available.

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

²Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2001 data.

³Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP¹

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers ²		Brass and wire-rod mills ³		Foundries, etc. ²		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2002: ^P									
January - November	34,300 ^r	31,900 ^r	40,600 ^r	120,000 ^r	838,000 ^r	18,200	38,500 ^r	40,700 ^r	1,160,000 ^r
November	2,130	3,270	3,690	10,900	68,600	2,160	3,500	3,700	97,900
December	2,100	1,990	3,690	10,900	71,900	1,160	3,500	3,700	98,900
Year	36,400	33,900	44,300	131,000	910,000	19,300	42,000	44,400	1,260,000
2003:									
January	1,430	3,130	3,690	10,900	79,700	1,510	3,500	3,700	108,000
February	1,230	2,730	3,690	10,900	68,100	1,320	3,500	3,700	95,100
March	1,350	4,000	3,690	10,900	70,000	781	3,500	3,700	97,900
April	1,350	5,440	3,690	10,900	65,900	1,420	3,500	3,700	95,900
May	1,350	2,750	3,690	10,900	67,300	1,350	3,500	3,700	94,500
June	1,380	2,790	3,690	10,900	69,600	1,240	3,500	3,700	96,800
July	1,390	2,780	3,690	10,900	64,500	1,170	3,500	3,700	91,600
August	1,350	2,600	3,690	10,900	67,200	1,030	3,500	3,700	93,900
September	1,350	2,900	3,690	10,900	68,900	1,410	3,500	3,700	96,400
October	1,350	3,180	3,690	10,900	71,800	1,460	3,500	3,700	99,500
November	1,350	2,950	3,690	10,900	64,900	1,290	3,500	3,700	92,200
January - November	14,900	35,200	40,600	120,000	758,000	14,000	38,500	40,700	1,060,000

^PPreliminary. ^rRevised.

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

²Monthly data and 2002 cumulative data estimated from 2001 annual data.

³Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP^{1,2}

(Metric tons, gross weight)

Scrap type and processor	2002 ^p		2003		
	January - November	Year	October	November	January - November
No. 1 wire and heavy:					
Smelters and refiners	68,000 ^r	73,800	5,790	5,790	63,600
Brass and wire-rod mills	348,000 ^r	379,000	31,800	30,100	345,000
No. 2 mixed heavy and light:					
Smelters and refiners	40,900 ^r	43,000	2,620	2,390	29,200
Brass and wire-rod mills	6,230 ^r	6,630	510	285	5,120
Total unalloyed scrap:					
Smelters and refiners	109,000 ^r	117,000	8,420	8,180	92,800
Brass and wire-rod mills	355,000 ^r	386,000	32,300	30,400	350,000
Red brass:³					
All plants	49,100 ^r	53,100	4,370	4,300	47,200
Leaded yellow brass:					
All plants	317,000 ^r	340,000	27,300	24,500	285,000
Yellow and low brass:					
All plants	93,700 ^r	104,000	3,920	4,560	46,600
Cartridge cases and brass:					
Smelters and refiners	W	W	W		W
Brass mills	64,000 ^r	70,300	7,630	5,140	72,400
Auto radiators:					
Smelters and refiners	38,100 ^r	41,600	3,460	3,460	38,100
Bronzes:					
Smelters and refiners	10,700 ^r	11,700	973	973	10,700
Brass mills	11,500 ^r	12,600	424	493	4,960
Nickel-copper alloys:					
All plants	14,500	15,300	1,670	1,370	15,500
Low grade and residues:					
Smelters and refiners	12,800 ^r	14,000	1,170	1,170	12,800
Other alloy scrap:⁴					
Smelters and refiners ⁵	2,020 ^r	2,200	184	184	2,020
Brass mills	6,410 ^r	6,980	485	322	3,680
Total alloyed scrap:					
Smelters and refiners	118,000	128,000	10,700	10,700	118,000
Brass mills	502,000 ^r	544,000	40,900	35,800	421,000
Total scrap:					
Smelters and refiners	227,000 ^r	245,000	19,100	18,900	211,000
Brass and wire-rod mills	857,000 ^r	930,000	73,200	66,200	772,000

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

¹Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 7,290 tons of scrap per month in 2001; monthly data include estimates of about 14,600 tons of scrap per month consumed by ingot makers.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

⁴Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

⁵Includes items indicated by symbol W.

TABLE 11
COPPER STOCKS AT END OF PERIOD¹

(Metric tons)

Period	Crude copper ²	Refined copper					LME ⁶	Total refined
		Refineries ³	Wire-rod mills ³	Brass mills ³	Other ⁴	Comex ⁵		
2002: ^P								
November	76,300	14,400	21,200	32,700	3,600	347,000	607,000	1,030,000
December	44,400	11,700	23,000	28,700	3,600	362,000	601,000	1,030,000
2003:								
January	44,100	6,300	37,900	29,700	3,600	360,000	570,000	1,010,000
February	46,800	3,720	23,000	23,600	3,600	340,000	544,000	938,000
March	47,100	5,270	33,500	23,100	3,600	330,000	545,000	941,000
April	41,900	3,770	40,300	17,900	3,600	351,000	524,000	940,000
May	46,900	7,160	42,500	16,100	3,600	305,000	495,000	869,000
June	45,800	4,750	36,200	21,500	3,600	291,000	453,000	810,000
July	42,300	4,820	28,400	23,700	3,600	282,000	431,000	774,000
August	47,900	5,310	30,100	20,400	3,600	276,000	444,000	780,000
September	44,500	4,100	33,300	19,100	3,600	271,000	419,000	751,000
October	51,700	3,590	23,200	16,700	3,600	267,000	379,000	693,000
November	57,500	7,110	23,300	21,400	3,600	262,000	353,000	671,000

^PPreliminary.

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

²Copper content of blister and other materials in transit and in process of refining.

³Stocks of refined copper as reported; no estimates are made for nonrespondents.

⁴Monthly estimates based on 2001 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵Commodity Exchange Inc., New York.

⁶London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode ¹	Comex first position ²	LME cash price Grade A
2002:			
November	76.729	72.571	71.758
December	76.541	72.383	72.365
Year	75.805	71.672	70.721
2003:			
January	79.529	75.371	74.722
February	81.121	76.963	76.360
March	79.875	75.717	75.234
April	76.365	72.176	71.988
May	78.020	75.045	74.746
June	79.716	76.926	76.484
July	82.245	78.055	77.549
August	84.165	79.995	79.826
September	86.030	81.840	81.152
October	92.290	88.104	87.099
November	96.867	92.681	93.215
January - November	83.293	79.352	78.943

¹Listed as "U.S. producer cathode."

²Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 Scrap	Red brass turnings and borings
2002:				
November	71.38	60.50	41.00	37.00
December	71.60	61.31	41.00	37.00
Year	70.23	59.45	42.36	37.00
2003:				
January	73.67	62.38	46.90	37.33
February	75.55	63.95	52.00	38.00
March	74.69	64.26	52.00	38.00
April	70.82	61.80	49.41	38.00
May	73.95	64.53	49.00	38.00
June	76.29	67.36	49.00	38.00
July	73.86	65.00	46.77	36.27
August	79.48	69.43	49.00	38.00
September	81.96	72.75	54.43	38.00
October	87.09	77.89	55.18	38.00
November	92.22	82.81	59.44	38.44
January - November	78.14	68.38	51.19	37.82

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2003			2003			2003			2003		
	2002	October	January - October	2002	October	January - October	2002	October	January - October	2002	October	January - October
Belgium	--	--	--	--	--	46	--	--	--	34	--	--
Brazil	--	--	--	--	--	--	--	--	--	45,000	--	6,510
Canada	8,350	--	86	75	--	152	83,700	7,850	67,800	235,000	25,800	170,000
Chile	51,800	--	4,940	--	--	--	37,400	2,900	37,100	245,000	22,800	310,000
Germany	--	--	--	--	--	59	(2)	--	--	3,260	214	5,170
Indonesia	2,910	--	--	--	--	--	--	--	--	--	--	--
Malaysia	--	--	--	17	--	2	--	--	--	--	--	--
Mexico	4	14,300	19,400	324	34	450	16,200	695	8,020	57,200	1,310	21,200
Namibia	--	--	--	--	--	--	6,340	--	13,700	--	--	--
Peru	5,960	--	--	--	--	--	4,730	--	5	288,000	31,500	220,000
Russia	--	--	--	--	--	--	--	--	--	28,800	--	--
Taiwan	17	--	--	621	39	508	--	--	--	10	--	--
Turkey	2,910	--	--	--	--	--	--	--	--	--	--	--
United Kingdom	--	--	--	--	--	--	2	--	1	3,410	--	10,100
Other	2	--	--	2	--	6	70	--	--	21,900	370	5,170
Total	71,900	14,300	24,400	1,040	73	1,220	148,000	11,400	127,000	927,000	82,000	748,000

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2003			2003			2003			2003		
	2002	October	January - October	2002	October	January - October	2002	October	January - October	2002	October	January - October
Australia	21	--	4	5	--	--	77	--	42	1,650	--	32
Canada	17,500	133	7,100	2,560	1,230	5,000	17,700	1,370	13,800	3,130	60	1,810
China	1,110	6	200	63	22	153	515	61	547	14,900	3,020	42,800
Egypt	--	--	--	--	--	--	--	--	--	2,200	--	--
Germany	28	--	--	85	--	(2)	241	40	383	79	16	171
Hong Kong	25	1	27	160	--	(2)	2,600	202	2,170	38	19	49
India	9	--	--	153	--	175	83	--	8	825	236	1,200
Japan	36	3	102	1,330	15	40	40	1	85	48	15	229
Korea, Republic of	197	--	--	40	--	8	707	66	588	524	20	223
Mexico	2,620	--	216	12,400	259	7,830	38	4	245	135	34	12,100
Netherlands	38	--	--	35	--	1	1,100	--	--	16	--	--
Peru	1,230	--	214	39	--	--	--	--	--	--	--	--
Philippines	--	--	--	3	--	--	5,880	--	44	3	44	163
Singapore	60	--	6	(2)	(2)	4	614	60	391	7	--	53
Spain	--	10	28	4	36	36	259	3	362	6	--	5
Taiwan	80	--	11	104	--	--	1,000	120	914	1,630	1,100	3,080
United Arab Emirates	16	--	2	--	--	4	7	171	337	36	--	--
United Kingdom	16	--	35	65	11	69	469	73	349	527	--	36
Other	80 ^r	--	256	87	--	133	1,570 ^r	97	738	819 ^r	84	516
Total	23,000	153	8,200	17,100	1,580	13,400	32,900	2,270	21,000	26,600	4,640	62,500

^rRevised. -- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP TRADE¹

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2003			2003			2003			2003		
	2002	October	January - October	2002	October	January - October	2002	October	January - October	2002	October	January - October
Barbados	229	21	196	18	--	4	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	2,210	194	1,940	7,050	551	4,400
Canada	13,900	305	3,780	38,700	3,100	30,200	20,100	2,040	18,400	19,900	901	15,900
Chile	611	--	18	78	--	--	144	--	--	66	--	4
China	--	--	--	547	113	620	122,000	22,900	187,000	155,000	25,000	190,000
Costa Rica	1,100	89	723	458	81	359	--	--	--	2	--	6
Dominican Republic	1,360	123	973	884	113	699	--	--	--	--	--	4
Germany	118	--	15	1,110	956	4,140	14,200	1,270	7,350	16,400	464	6,670
Guatemala	536	38	400	1,190	43	769	--	--	--	(2)	--	--
Honduras	399	50	385	347	70	404	--	--	--	--	--	--
Hong Kong	3	--	--	--	--	--	7,180	179	2,080	6,140	1,070	7,710
India	--	--	--	(2)	--	18	3,920	167	4,670	43,500	3,830	39,300
Jamaica	362	39	511	239	18	115	--	--	--	--	--	--
Japan	97	--	66	193	--	261	11,000	535	5,820	9,120	579	8,540
Korea, Republic of	19	--	--	40	--	21	14,900	1,590	21,700	18,700	977	13,500
Malaysia	--	--	--	264	12	216	--	14	3,620	243	--	88
Mexico	9,250	1,350	8,000	18,300	1,930	15,400	2,280	436	2,590	248	48	586
Nicaragua	321	17	200	170	11	150	--	--	--	--	--	--
Norway	--	--	351	--	--	39	--	--	--	253	56	318
Panama	173	--	--	792	29	540	--	--	--	79	--	6
Taiwan	15	--	--	389	11	304	10,100	476	7,340	9,060	400	6,480
United Kingdom	155	20	201	1,760	57	688	17	--	--	1,380	55	736
Venezuela	93	--	95	2,090	109	853	--	--	--	--	--	--
Other	497	72	397	3,280	145	2,170	4,680	81	2,810	10,500	910	7,150
Total	29,300	2,130	16,300	70,900	6,800	58,000	213,000	29,900	266,000	298,000	34,900	302,000

-- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.