

# Mineral Industry Surveys

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### **COPPER IN FEBRUARY 2017**

In February 2017, domestic mine production of recoverable copper was 99,000 metric tons (t). The average daily mine production was 3,540 t, slightly less than that in January and a decrease of 13% compared with February 2016. Total refinery production in February 2017 was 93,900 t. Average daily refinery production was 3,350 t, 3% greater than that in January and slightly less than that in February 2016 (fig. 1; tables 2, 4).

U.S. electrolytic refinery production in February 2017 was 48,200 t, an increase of 5% on a daily basis compared with January and 15% greater than the daily average in February 2016. Electrowon production was 41,600 t, a slight decrease on a daily basis relative to that in January and 11% less than the daily average in February 2016. Smelter production in February 2017 was 45,600 t, 3% greater on a daily basis than that in January and slightly more than the daily average in February 2016 (tables 3, 4).

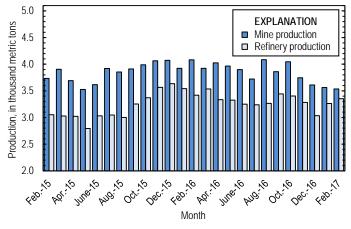


Figure 1. Average daily domestic copper mine production (recoverable) and refinery production from February 2015 through February 2017. Source: U.S. Geological Survey.

#### **Stocks**

Refined copper stocks in the United States at the end of February 2017 totaled 250,000 t and were essentially

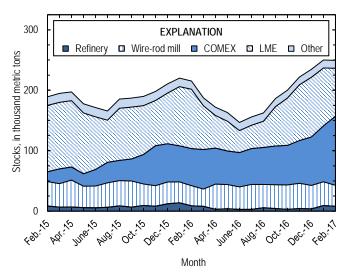


Figure 2. Monthly U.S. refined copper stocks, by type, from February 2015 through February 2017. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

unchanged compared with those at the end of January. Prior to February 2017, refined stocks had increased for 7 consecutive months. COMEX stocks rose by 23%, LME stocks decreased by 17%, and stocks at wire-rod mills declined by 12%. Total refined stocks were 16% greater than those at the end of February 2016 (fig. 2, table 10).

### **Prices**

The average February 2017 COMEX spot copper price was \$2.69 per pound, the highest monthly average since June 2015 (fig. 3). The February price increased by 3% from \$2.62 per pound in January and was 30% greater than that in February 2016 (table 11). The average price for New York dealers' number 2 scrap in February 2017 was \$1.87 per pound, up by 5% from the average price in January and 32% greater than the average price in February 2016 (table 12).

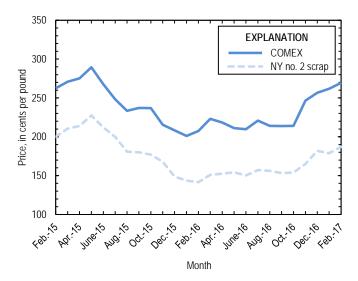


Figure 3. Monthly average COMEX copper price and New York no. 2 copper scrap price from February 2015 through February 2017. Sources: American Metal Market, Platts Metals Week.

### **Industry News**

Production ceased at two major copper-producing mines for most of February 2017. PT Freeport Indonesia, a subsidiary of Freeport-McMoRan Inc., halted production of copper concentrate at the Grasberg Mine on February 10 after its storage warehouse reached capacity. The company's license to

export copper concentrate expired on January 11, and efforts to reach an agreement with the Government of Indonesia were unsuccessful as of the end of February. Each day of lost production will reduce global copper concentrate output by approximately 1,170 t (Freeport-McMoRan Inc., 2017; Hotter, 2017). In addition, workers at the Escondida Mine in Chile went on strike beginning February 9 (Assalve, 2017). The Grasberg and Escondida Mines collectively accounted for about 7% of global copper concentrate production in 2016.

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# $\label{table 1} {\sf TABLE~1}$ SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES $^1$

(Metric tons, unless otherwise specified)

				2017	
	Source				January-
	table <sup>2</sup>	2016 <sup>p</sup>	January	February	February
Production:					
Primary:					
Mine, recoverable	(2)	1,430,000	110,000 <sup>r</sup>	99,000	209,000
Smelter, total	(3)	563,000	48,900	45,600	94,500
Refinery:					_
Electrolytic, domestic and foreign	(4)	561,000	51,100	48,200	99,300
Electrowon	(4)	615,000	46,800	41,600	88,400
Total	(4)	1,180,000	97,900	89,800	188,000
Secondary recoverable copper:					
Refineries	(5)	46,300	3,240	4,090	7,330
Ingot makers <sup>3</sup>	(5)	73,100	6,090	6,090	12,200
Brass and wire-rod mills	(5)	621,000	52,900	53,000	106,000
Foundries, etc. <sup>3</sup>	(5)	47,200	3,940	3,940	7,870
Consumption:					
Apparent	(8)	1,880,000	156,000	148,000	304,000
Refined (reported)	(7)	1,780,000	147,000	148,000	295,000
Purchased copper-base scrap	(9)	917,000	80,400	80,500	161,000
Stocks at end of period:					
Total refined	(10)	235,000	250,000	250,000	250,000
Blister, etc.	(10)	14,200	11,700	13,400	13,400
Prices, U.S. producers cathode (cents per pound) <sup>4</sup>	(11)	224.873	266.363	274.051	270.207
Imports: <sup>5</sup>					
Ore and concentrate <sup>6</sup>	(13)	105		1,590	1,590
Refined	(13)	708,000	72,600	59,600	132,000
Exports: <sup>5</sup>					
Ore and concentrate <sup>6</sup>	(14)	331,000	8,750	14,000	22,800
Refined	(14)	134,000	12,300	9,100	21,400
PD-1::					

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. -- Zero.

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

<sup>&</sup>lt;sup>2</sup>Numbers in parentheses refer to the tables where these data are located.

 $<sup>^3\</sup>mbox{Monthly}$  data estimated based on 2015 monthly average.

<sup>&</sup>lt;sup>4</sup>Source: Platts Metals Week.

<sup>&</sup>lt;sup>5</sup>Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>6</sup>Copper content.

 ${\bf TABLE~2}$  MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES  $^1$ 

### (Metric tons)

	Re	ecoverable coppe	r	Contained copper			
Period	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total	
2016: <sup>p</sup>							
February	79,400	38,900	118,000	48,500	72,800	121,000	
March	81,600	40,100	122,000	51,400	73,000	124,000	
April	81,200	39,500	121,000	49,700	73,900	124,000	
May	83,500	39,400	123,000	51,700	74,000	126,000	
June	79,800	37,200	117,000	50,700	69,000	120,000	
July	80,200	35,100	115,000	54,000	63,700	118,000	
August	86,400	40,300	127,000	52,700	76,900	130,000	
September	79,400	36,400	116,000	51,400	67,000	118,000	
October	81,800	43,700	125,000	53,300	74,900	128,000	
November	74,200	38,200	112,000	48,700	66,100	115,000	
December	76,600	35,300	112,000	47,900	66,600	115,000	
January-December	969,000	461,000	1,430,000	615,000	848,000	1,460,000	
2017:							
January	70,200	40,200 <sup>r</sup>	110,000 <sup>r</sup>	46,800	66,100 <sup>r</sup>	113,000 <sup>r</sup>	
February	64,500	34,500	99,000	41,600	59,700	101,000	
January-February	135,000	74,800	209,000	88,400	126,000	214,000	

Preliminary. Revised.

 $\label{eq:table 3} \text{COPPER PRODUCED AT SMELTERS IN}$  THE UNITED STATES  $^{1,2}$ 

(Metric tons, copper content)

	Anode
Period	production
2016: <sup>p</sup>	
February	46,100
March	41,400
April	47,300
May	51,900
June	45,400
July	33,100
August	47,700
September	54,000
October	51,900
November	43,300
December	55,000
January-December	563,000
2017:	
January	48,900
February	45,600
January-February	94,500
D=- 41 4	

<sup>&</sup>lt;sup>p</sup>Preliminary.

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

 $<sup>^2 \</sup>mbox{Includes}$  production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

<sup>&</sup>lt;sup>3</sup>Includes copper content of precipitates and other metal concentrates.

<sup>&</sup>lt;sup>1</sup>Includes blister and copper anode from primary or secondary sources.

<sup>&</sup>lt;sup>2</sup>Data are rounded to no more than three significant digits; may not add to total shown.

TABLE 4 PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY  $^{\rm I}$ 

(Metric tons)

	Prin	nary materials			
	Electrolytically				Total
Period	refined <sup>2</sup>	Electrowon	Total	Scrap	refined
2016: <sup>p</sup>					
February	43,500	48,500	92,000	7,190	99,200
March	53,300	51,400	105,000	4,900	110,000
April	47,100	49,700	96,800	3,200	100,000
May	48,200	51,700	99,900	3,180	103,000
June	43,600	50,700	94,200	3,260	97,500
July	43,200	54,000	97,200	3,280	100,000
August	45,200	52,700	97,900	3,300	101,000
September	48,200	51,400	99,500	3,810	103,000
October	48,800	53,300	102,000	3,410	105,000
November	46,600	48,700	95,300	3,220	98,500
December	42,900	47,900	90,800	3,330	94,100
January-December	561,000	615,000	1,180,000	46,300	1,220,000
2017:	= (				
January	51,100	46,800	97,900	3,240	101,000
February	48,200	41,600	89,800	4,090	93,900
January–February	99,300	88,400	188,000	7,330	195,000

 $<sup>{}^{</sup>p}$ Preliminary.

 ${\it TABLE~5}$  COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP  $^1$ 

(Metric tons, copper content)

-	Refin	eries <sup>2</sup>	Ingot n	nakers <sup>3</sup>	Brass and w	ire-rod mills	Foundri	es, etc. <sup>3</sup>	
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total <sup>4</sup>
2016: <sup>p</sup>									
February	1,640	5,550	1,290	4,800	45,700	3,190	3,040	898	66,100
March	1,660	3,240	1,290	4,800	46,000	3,150	3,040	898	64,100
April	1,630	1,570	1,290	4,800	50,500	2,790	3,040	898	66,500
May	1,610	1,570	1,290	4,800	50,400	2,610	3,040	898	66,200
June	1,680	1,580	1,290	4,800	49,600	3,000	3,040	898	65,800
July	1,680	1,600	1,290	4,800	48,200	2,600	3,040	898	64,100
August	1,680	1,620	1,290	4,800	48,900	2,790	3,040	898	65,000
September	1,680	2,130	1,290	4,800	49,700	2,730	3,040	898	66,300
October	1,680	1,740	1,290	4,800	51,800	3,020	3,040	898	68,300
November	1,680	1,540	1,290	4,800	49,900	3,060	3,040	898	66,200
December	1,680	1,650	1,290	4,800	49,100	2,860	3,040	898	65,300
January-December	19,900	26,400	15,400	57,600	586,000	35,200	36,500	10,800	788,000
2017:									
January	1,680	1,560	1,290	4,800	49,500	3,360	3,040	898	66,100
February	1,680	2,420	1,290	4,800	50,100	2,940	3,040	898	67,100
January–February	3,350	3,980	2,570	9,610	99,500	6,300	6,080	1,800	133,000

<sup>&</sup>lt;sup>p</sup>Preliminary.

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

<sup>&</sup>lt;sup>2</sup>From domestic and foreign source materials.

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

<sup>&</sup>lt;sup>2</sup>Electrolytically refined and fire-refined from scrap based on source of material at smelter or refinery level.

<sup>&</sup>lt;sup>3</sup>Monthly data and 2016 cumulative data estimated based on 2015 annual data.

<sup>&</sup>lt;sup>4</sup>Does not include an estimate, based on reported 2015 data, of 3,050 tons per month from new scrap and 2,510 tons per month from old scrap, of copper recovered from scrap other than copper-base.

 ${\bf TABLE~6}$  PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES  $^1$ 

(Metric tons, gross weight)

	Pro	duction	Shi	pments	Stocks, end of period	
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2016: <sup>p</sup>						
February	73,600	109,000	73,900	108,000	28,200	28,900
March	75,000	117,000	74,200	113,000	28,900	33,100
April	73,500	109,000	73,300	108,000	29,200	29,400
May	72,300	110,000	73,700	111,000	27,800	28,300
June	72,300	112,000	71,200	110,000	28,900	30,200
July	72,800	103,000	72,700	103,000	29,100	29,600
August	74,400	113,000	73,800	113,000	29,600	29,600
September	72,500	106,000	73,500	110,000	28,700	25,200
October	74,800	111,000	75,100	109,000	28,500	27,100
November	72,700	108,000	72,800	107,000	28,300	28,100
December	72,300	96,100	72,100	97,900	28,500	26,300
January-December	880,000	1,310,000	880,000	1,300,000	28,500	26,300
2017:						
January	73,500	109,000	72,900	111,000	29,100	24,000
February	72,800	100,000	73,100	95,700	28,900	28,700
January-February	146,000	209,000	146,000	207,000	28,900	28,700

<sup>&</sup>lt;sup>p</sup>Preliminary.

 $\label{eq:table 7} \text{CONSUMPTION OF REFINED COPPER}^1$ 

(Metric tons)

	Brass	Wire-rod	Other	
Period	mills	mills	plants <sup>2</sup>	Total
2016: <sup>p</sup>			•	
February	35,700	107,000	5,820	149,000
March	35,400	116,000	5,820	157,000
April	34,900	107,000	5,820	148,000
May	34,400	108,000	5,820	149,000
June	35,500	110,000	5,820	151,000
July	35,500	100,000	5,820	142,000
August	35,600	111,000	5,820	153,000
September	35,400	103,000	5,820	145,000
October	35,400	110,000	5,820	151,000
November	34,400	110,000	5,820	150,000
December	33,800	93,000	5,820	133,000
January-December	421,000	1,290,000	69,800	1,780,000
2017:				
January	34,600	106,000	5,820	147,000
February	34,800	108,000	5,820	148,000
January–February	69,400	214,000	11,600	295,000

<sup>&</sup>lt;sup>p</sup>Preliminary.

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

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

<sup>&</sup>lt;sup>2</sup>Monthly and 2016 cumulative consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2015 annual data.

 $\label{eq:table 8} \textbf{U.S.} \ \textbf{APPARENT CONSUMPTION OF COPPER}^1$ 

### (Metric tons)

Period	Refined copper production	Copper in old scrap <sup>2</sup>	Refined general imports <sup>3</sup>	Refined exports <sup>3</sup>	Stock change during period	Apparent consumption
2016: <sup>p</sup>						
February	91,800	17,000	43,800	16,800	(4,810)	141,000
March	105,000	14,600	43,400	24,800	(27,900)	166,000
April	96,800 <sup>r</sup>	12,600	52,400	9,650	(15,500)	168,000 <sup>r</sup>
May	99,900	12,400	52,400	22,000	(8,810)	152,000
June	94,200	12,800	63,400	5,600	(16,400)	181,000
July	97,200	12,400	68,200	6,510	9,060	162,000
August	97,900	12,600	62,000	6,420	6,690	159,000
September	99,500 <sup>r</sup>	13,100	66,500	6,630	23,800	149,000
October	102,000	13,000	66,700	7,750	13,900	160,000
November	95,300	12,800	66,100	13,100	21,700	139,000
December	90,800	12,700	60,400	8,040	12,800	143,000
January-December	1,180,000	160,000	701,000	134,000	26,100	1,880,000
2017:						
January	97,900	13,100	72,400	12,300	15,300	156,000
February	89,800	13,600	53,500	9,100	(538)	148,000
January–February	188,000	26,700	126,000	21,400	14,800	304,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

 ${\bf TABLE~9}$   ${\bf CONSUMPTION~OF~PURCHASED~COPPER-BASE~SCRAP}^1$ 

(Metric tons, gross weight)

	Sme	lters			Brass	s and			
	and ref	ineries	Ingot n	nakers <sup>2</sup>	wire-ro	d mills <sup>3</sup>	Foundri	es, etc. <sup>2</sup>	Total scrap
Period	New scrap	Old scrap	New scrap		New scrap	Old scrap	New scrap	Old scrap	used
2016: <sup>p</sup>									
February	1,690	2,680	2,890	5,460	53,600	3,290	3,660	992	74,200
March	1,710	2,830	2,890	5,460	53,900	3,230	3,660	992	74,600
April	1,680	1,570	2,890	5,460	58,400	2,880	3,660	992	77,600
May	1,660	1,570	2,890	5,460	58,400	2,690	3,660	992	77,300
June	1,730	1,590	2,890	5,460	57,500	3,090	3,660	992	76,900
July	1,730	1,590	2,890	5,460	56,200	2,670	3,660	992	75,100
August	1,730	1,590	2,890	5,460	56,900	2,870	3,660	992	76,000
September	1,730	1,590	2,890	5,460	57,600	2,800	3,660	992	76,700
October	1,730	1,590	2,890	5,460	59,800	3,120	3,660	992	79,200
November	1,730	1,590	2,890	5,460	58,000	3,250	3,660	992	77,500
December	1,730	1,590	2,890	5,460	57,100	2,990	3,660	992	76,400
January-December	20,500	22,400	34,700	65,500	681,000	36,400	43,900	11,900	917,000
2017:									
January	1,820	4,630	2,890	5,460	57,500	3,490	3,660	992	80,400
February	1,820	4,630	2,890	5,460	58,000	3,040	3,660	992	80,500
January-February	3,650	9,260	5,780	10,900	116,000	6,530	7,320	1,980	161,000

<sup>&</sup>lt;sup>p</sup>Preliminary.

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

<sup>&</sup>lt;sup>2</sup>Includes 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 2015 data.

<sup>&</sup>lt;sup>3</sup>Source: U.S. Census Bureau.

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

<sup>&</sup>lt;sup>2</sup>Monthly data estimated from 2015 annual data.

<sup>&</sup>lt;sup>3</sup>Consumption at brass and wire-rod mills assumed equal to receipts.

## ${\bf TABLE~10}$ ${\bf COPPER~STOCKS~AT~END~OF~PERIOD}^1$

### (Metric tons)

		Refined copper						
	Crude	-	Wire-rod					Total
Period	copper <sup>2</sup>	Refineries <sup>3</sup>	$mills^3$	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex	LME <sup>5</sup>	refined
2016: <sup>p</sup>								
February	14,500	8,820	33,400	7,840	5,730	61,200	98,300	215,000
March	13,600	7,900	28,700	7,460	5,730	65,300	72,400	187,000
April	12,400	3,200	41,600	7,950	5,730	59,400	54,100	172,000
May	15,500	3,950	40,100	8,670	5,730	55,400	49,300	163,000
June	18,700	2,820	37,300	7,680	5,730	56,600	36,600	147,000
July	13,500	3,040	41,200	7,940	5,730	59,300	38,600	156,000
August	12,500	5,660	38,500	7,930	5,730	61,000	43,600	162,000
September	12,600	4,230	39,500	7,650	5,730	64,000	65,200	186,000
October	14,700	3,230	40,200	7,270	5,730	65,300	78,400	200,000
November	13,800	4,290	41,800	7,070	5,730	70,600	92,400	222,000
December	14,200	3,750	38,900	7,380	5,730	80,100	98,900	235,000
2017:								
January	11,700	9,250	39,300	7,430	5,730	92,600	95,700	250,000
February	13,400	8,010	34,700	7,330	5,730	114,000	79,600	250,000

Preliminary.

TABLE 11 AVERAGE PRICE OF COPPER IN THE UNITED STATES AND ON THE LONDON METAL EXCHANGE

### (Cents per pound)

	Comex	LME
U.S. producers	first	cash price
cathode1	position <sup>2</sup>	Grade A
212.505	207.505	208.424
228.409	223.159	224.394
223.726	218.288	220.017
216.831	211.143	213.544
215.520	209.770	210.025
226.296	220.733	220.235
219.284	214.096	215.811
218.752	213.752	213.496
218.885	214.010	214.629
251.388	246.638	246.878
261.183	256.683	256.997
224.873	219.727	220.571
266.363	261.863	260.225
274.051	269.426	269.484
270.207	265.645	264.855
	212.505 228.409 223.726 216.831 215.520 226.296 219.284 218.752 218.885 251.388 261.183 224.873	U.S. producers cathode position positio

<sup>&</sup>lt;sup>1</sup>Sum of "Comex high grade first position" and "NY Dealer Premium Cathode."

Source: Platts Metals Week.

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

<sup>&</sup>lt;sup>2</sup>Copper content of blister and anode.

<sup>&</sup>lt;sup>3</sup>Stocks of refined copper as reported; no estimates are made for nonrespondents.

<sup>&</sup>lt;sup>4</sup>Monthly estimates based on reported and 2015 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

<sup>&</sup>lt;sup>5</sup>London Metal Exchange Ltd., U.S. warehouses.

<sup>&</sup>lt;sup>2</sup>Listed as "Comex high grade first position."

 ${\it TABLE~12} \\ {\it NEW~YORK~AVERAGE~BUYING~PRICES~FOR~COPPER~SCRAP} \\$ 

### (Cents per pound)

			Dealers (New York)	
				Red brass
	Brass mills	Refiners	No. 2	turnings and
Month	No. 1 scrap	No. 2 scrap	Scrap	borings
2016:				
February	205.90	187.18	141.50	125.00
March	222.17	202.72	151.02	128.70
April	217.98	199.00	152.50	130.00
May	210.83	192.43	154.26	132.38
June	210.30	191.68	150.27	130.14
July	221.00	201.70	157.15	134.10
August	213.54	192.26	156.20	133.35
September	213.43	191.88	153.21	131.57
October	212.71	190.05	153.88	131.95
November	241.32	218.05	165.00	137.50
December	248.38	224.48	181.98	146.00
Year	218.01	197.52	155.05	132.17
2017:		_		
January	254.78	228.38	178.80	144.65
February	261.50	234.00	186.97	148.00
January-February	258.14	231.19	182.89	146.33

Source: American Metal Market.

 ${\it TABLE~13} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~COPPER~(UNMANUFACTURED),~BY~CLASS}^1$ 

(Metric tons, copper content)

	Ore	and concentr	rate	Matte, ash, and precipitates			Bl	ister and ano	des	Refined		
		20	17		2017			2017			2017	
Country or		January-			January–			January-				January-
territory	2016	February	February	2016	February	February	2016	February	February	2016	February	February
Belgium				27		25						
Canada	72			355	22	24	2			193,000	15,100	33,200
Chile										354,000	36,700	79,200
China							(2)			77	4	4
Congo (Kinshasa)										21,100		2,300
Finland							175	34	34	110		
Germany							(2)			1,830	131	277
India	3									1,210		
Japan				109	(2)	(2)	3			4,090	391	619
Mexico	3	1,590	1,590	41						102,000	6,720	15,200
Netherlands				69			(2)			(2)	(2)	(2)
Peru										24,800	322	822
Other	27			205		11	95	(2)	11	4,680	313	553
Total	105	1,590	1,590	806	23	60	274	34	45	708,000	59,600	132,000

<sup>--</sup> Zero.

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

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.

 ${\it TABLE~14} \\ {\it U.S.~EXPORTS~OF~COPPER~(UNMANUFACTURED),~BY~CLASS}^1$ 

(Metric tons, copper content)

-	Ore and concentrate			Matte, ash, and precipitates			Bl	ister and anoc	les	Refined		
		20	17		2017			2017			2017	
Country or			January-		January–			January-				January-
territory	2016	February	February	2016	February	February	2016	February	February	2016	February	February
Belgium	(2)			5,700	672	1,280	679	31	82			(2)
Canada	25,800	2,670	5,190	12,300	784	1,240	2,050	339	635	32,300	2,730	4,360
China	57,800	5,430	6,950	52			485	22	22	32,600	6	3,030
Germany				204	135	192	517	20	20	21		
Hong Kong				36			1,070	125	204			
Italy							356		22	240		1
Japan	20,400	9	9	180	33	33	453	14	14	157	(2)	(2)
Korea, Republic of	138	32	32	352	18	36	1,420	117	327	85	5	8
Mexico	226,000	5,860	10,500				99	48	57	67,700	6,330	14,000
Singapore							42			13		
Spain				40			266	20	40	4		(2)
Switzerland							24		1	5		
Taiwan				359	36	54	60	20	40	62		5
Other	855	10	21	884	(2)	(2)	1,970	69	322	518	24	28
Total	331,000	14,000	22,800	20,100	1,680	2,830	9,490	825	1,790	134,000	9,100	21,400

<sup>--</sup> Zero.

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

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.

 $\label{eq:table 15} \text{U.S. COPPER SCRAP IMPORTS}^1$ 

(Metric tons, gross weight)

		Unalloyed		Alloyed				
	·	201	17		2017			
Country or			January-			January– February		
territory	2016	February	February	2016	February			
Canada	13,200	1,920	3,690	52,100	5,420	11,700		
Chile	41			211	57	75		
Colombia	259	19	19	1,180	81	208		
Costa Rica	344	45	69	1,030	137	197		
Guatemala		21	21	326	8	25		
Honduras	102			357	31	48		
Mexico	12,900	685	1,430	34,400	2,900	6,020		
Nicaragua				264				
Other	2,170	168	481	6,180	340	884		
Total	29,100	2,860	5,710	96,100	8,980	19,200		

<sup>--</sup> Zero.

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

TABLE 16
U.S. COPPER SCRAP EXPORTS<sup>1</sup>

(Metric tons, gross weight)

-	Unalloyed								Alloyed					
				20	17									
		No	o. 1	No	). 2	Other			Segregated		Unsegregated			
Country or			January-		January-		January-			January-		January-		
territory	2016	February	February	February	February	February	February	2016	February	February	February	February		
Belgium	9,030	275	467	94	320	118	535	8,370	135	175	539	698		
Canada	23,400					3,660	6,940	51,200			4,800	9,110		
China	283,000	8,350	17,800	6,350	14,600	11,000	22,100	377,000	9,100	18,300	22,500	39,900		
Germany	24,900	1,180	1,910	228	499	146	194	8,150	54	66	617	1,170		
Hong Kong	6,570	153	268	121	145	20	232	17,100	153	272	1,550	2,410		
India	1,580	20	99	25	50	250	268	23,000	816	1,540	233	411		
Japan	6,520	105	141	347	466	343	622	8,730	136	136	757	1,460		
Korea, Republic of	17,100	490	1,160	40	146	406	703	10,300	354	636	344	627		
Mexico	1,660	37	377			2	7	951	4	10	24	27		
Netherlands	12,100	75	572	41	60	436	711	1,170				18		
Spain	182		12		9	20	20	7,770	135	249	229	423		
Taiwan	8,260	567	986	58	165	61	61	1,740	93	168	107	186		
Thailand	121					(2)	3	1,050		40				
Other	14,900	1,340	3,030	117	541	10	66	16,900	231	442	1,120	2,280		
Total	410,000	12,600	26,800	7,420	17,000	16,400	32,500	534,000	11,200	22,100	32,800	58,700		

<sup>--</sup> Zero.

 $<sup>^{1}\</sup>mbox{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Less than ½ unit.