

# Mineral Industry Surveys

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# **COPPER IN MARCH 2018**

In March 2018, domestic mine production of recoverable copper was 92,500 metric tons (t). The average daily mine production was 2,980 t, a decrease of 3% from that in February and a decline of 19% compared with that in March 2017. Year-to-date recoverable mine production through March 2018 was 277,000 t, a decrease of 14% relative to the same period in 2017 (fig. 1, table 2).

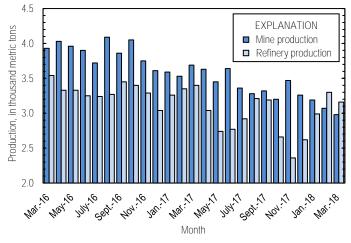


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from March 2016 through March 2018. Source: U.S. Geological Survey.

Capstone Mining Corp. (Canada) reported that the recovery rate and throughput at the Pinto Valley Mine were lower than expected during the first quarter of 2018 and that greater output was anticipated for the rest of the year (Capstone Mining Corp., 2018). Recoverable copper production at Freeport-McMoRan Inc.'s (Phoenix, AZ) domestic mines was 11% lower through March 2018 compared with that through March 2017; the company gave no reason for the decrease but expected U.S. copper sales for all of 2018 to equal those in 2017 (Freeport-McMoRan Inc., 2018). The Bingham Canyon Mine, owned and operated by Rio Tinto plc (United Kingdom), produced 20% less copper in the first quarter of 2018 relative to the first quarter of 2017 as a result of temporarily lower ore grades (Rio Tinto plc, 2018, p. 4).

Total U.S. refinery production was 98,000 t in March 2018; data for electrolytic and electrowon output, as well as refined production from scrap, are in table 4. Average daily total refinery production was 3,160 t, a decrease of 4% compared with that in February and 7% less than that in March 2017. Year-to-date refinery production through March 2018 was 283,000 t, a decline of 6% relative to the same period in 2017 (fig. 1, table 4).

Smelter production in March 2018 was 41,500 t. The average daily smelter production was 1,340 t, 11% less than that in February and a decrease of 20% compared with the daily average in March 2017. Year-to-date smelter production through March 2018 was 138,000 t, 8% less than that through March 2017 (table 3).

## Prices

The average March 2018 COMEX spot copper price was \$3.07 per pound, a decrease of 3% from \$3.17 per pound in February and 16% greater than \$2.64 per pound in March 2017 (fig. 2, table 11). The average price of New York dealers' number 2 scrap in March 2018 was \$2.14 per pound, down slightly from \$2.18 per pound in February and 16% higher than \$1.84 per pound in March 2017 (fig. 2, table 12). The COMEX spot copper price fell in February and March from the recent peak of \$3.19 per pound in January owing in part to decreased manufacturing activity in China compared with that in 2017 and strengthening of the United States dollar (CRU International Ltd., 2018, p. 4).

# Stocks

Refined copper stocks in the United States totaled 301,000 t at the end of March 2018, an increase of 5% from those in February and 21% more than those in March 2017. COMEX stocks rose slightly, stocks at wire-rod mills increased by 4%, and London Metal Exchange Ltd. stocks in U.S. warehouses were 43% higher compared with those at the end of February (fig. 3, table 10).

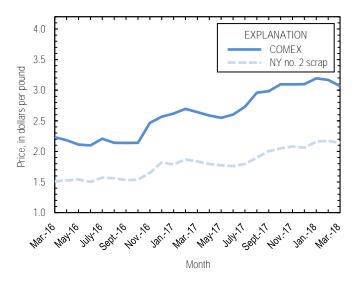


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from March 2016 through March 2018. Sources: American Metal Market, Platts Metals Week.

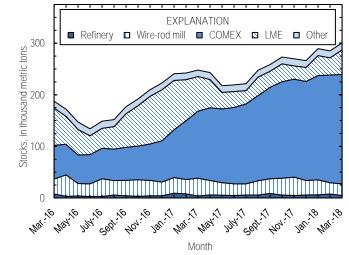


Figure 3. Monthly domestic refined copper stocks, by type, from March 2016 through March 2018. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

#### **Industry News**

A partial strike at the Cobre Panama project, the only major copper mine expected to initiate production in 2018, began on March 9 and ended on March 26. First Quantum Minerals Ltd. (Canada) previously anticipated that the mine, the only copper operation in Panama, would begin ramping up in the last quarter of 2018 and produce between 270,000 and 300,000 t of copper by 2020. The impact of the strike on this expected timeline was unclear (Keen, 2018; Luk, 2018b).

Unionized workers at the Los Pelambres Mine in Chile, owned by Antofagasta plc (United Kingdom), also went on strike for nearly 3 weeks in March. In 2017, Los Pelambres was one of the leading global copper mines and produced 344,000 t of copper in concentrates, nearly 2% of global output (Antofagasta plc, 2018, p. 36). Thirty-four labor agreements at Chilean copper mines were scheduled to be renegotiated in 2018, potentially impacting nearly 2.5 million metric tons of production (Assalve, 2018; Luk, 2018a).

Congo (Kinshasa) enacted a new mining code on March 9. Under the new regulations, mining companies will pay a royalty rate of 3.5% on copper, up from 2% (CRU International Ltd., 2018, p. 11, 12).

#### **References Cited**

- Antofagasta plc, 2018, Annual report and financial statements 2017: London, United Kingdom, Antofagasta plc, 212 p. (Accessed June 21, 2018, at http://www.antofagasta.co.uk/media/3388/antofagasta-2017-annual-reportand-financial-statements.pdf.)
- Assalve, Danielle, 2018, Los Pelambres mine, workers in labor deal: American Metal Market, March 27. (Accessed March 30, 2018, via http://www.amm. com/.)
- Capstone Mining Corp., 2018, Capstone Mining 2018 first quarter production results: Vancouver, British Columbia, Canada, Capstone Mining Corp. press release, April 10, 4 p. (Accessed May 29, 2018, at http://s2.q4cdn.com/ 231101920/files/doc news/2018/04/2018-Q1-Production-NR FINAL.pdf.)
- CRU International Ltd., 2018, CRU copper monitor: London, United Kingdom, CRU International Ltd., March 22, 22 p. (Accessed May 29, 2018, via http://www.crugroup.com/.)
- Freeport-McMoRan Inc., 2018, Freeport-McMoRan reports first-quarter March 31, 2018 results: Phoenix, AZ, Freeport-McMoRan Inc. news release, April 24, 10 p. (Accessed May 29, 2018, at https://s22.q4cdn.com/529358580/files/ doc\_news/2018/FCX\_180424.pdf.)
- Keen, Kip, 2018, Partial strike ends at First Quantum's Cobre Panama: S&P Global Market Intelligence, March 26. (Accessed March 30, 2018, via http://www.snl.com/.)
- Luk, Julian, 2018a, Cochilco fears copper output hit from mine disruptions: American Metal Market, March 7. (Accessed March 9, 2018, via http:// www.amm.com/.)
- Luk, Julian, 2018b, Workers strike at First Quantum copper mine: American Metal Market, March 14. (Accessed March 16, 2018, via http://www. amm.com/.)
- Rio Tinto plc, 2018, Rio Tinto releases first quarter production results: London, United Kingdom, Rio Tinto plc media release, April 18, 29 p. (Accessed May 29, 2018, at http://www.riotinto.com/documents/180418\_Rio\_Tinto\_releases \_first\_quarter\_production\_results.pdf.)

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# TABLE 1 SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES $^{\rm 1}$

				201	8	
	Source					January–
	table <sup>2</sup>	2017 <sup>p</sup>	January	February	March	March
Production:	_					
Primary:	_					
Mine, recoverable	(2)	1,260,000	99,000 r	85,800 <sup>r</sup>	92,500	277,000
Smelter, total	(3)	470,000	53,900	42,200	41,500	138,000
Refinery:	_					
Electrolytic, domestic and foreign	(4)	482,000	42,800	48,500	50,400	142,000
Electrowon	(4)	557,000	46,800	40,600	44,300	132,000
Total	(4)	1,040,000	89,600	89,000	94,800	273,000
Secondary recoverable copper: <sup>3</sup>						
Refineries	(5)	40,100	3,220	3,260	3,220	9,690
Ingot makers <sup>4</sup>	(5)	57,600	4,800	4,800	4,800	14,400
Brass and wire-rod mills	(5)	645,000	54,400	52,900	50,200	157,000
Foundries, etc. <sup>4</sup>	(5)	46,800	3,900	3,900	3,900	11,700
Consumption:	_					
Apparent	(8)	1,870,000	150,000	175,000 <sup>r</sup>	154,000	480,000
Refined (reported)	(7)	1,770,000	145,000	141,000 <sup>r</sup>	148,000	434,000
Purchased copper-base scrap (gross weight)	(9)	924,000	77,500	76,100	73,300	227,000
Stocks at end of period:	_					
Total refined	(10)	266,000	289,000	285,000 <sup>r</sup>	301,000	301,000
Blister, etc.	(10)	12,600	15,000	14,600	9,010	9,010
Price, U.S. producers cathode (cents per pound) <sup>5</sup>	(11)	285.393	324.640	322.495	312.083	319.739
Imports: <sup>6</sup>	-					
Ore and concentrate	(13)	14,100	8,910	8,130	1,500	18,500
Refined	(13)	813,000	88,300	77,000	72,900	238,000
Exports: <sup>6</sup>	-					
Ore and concentrate	(14)	237,000	23,500	15,400	23,800	62,800
Refined	(14)	94,200	9,550	7,270	12,100	28,900

# (Metric tons of copper content, unless otherwise specified)

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

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

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

<sup>3</sup>Copper recovered from copper-base scrap only.

<sup>4</sup>Estimated based on the monthly average of 2016 annual data.

<sup>5</sup>Source: Platts Metals Week.

<sup>6</sup>Source: U.S. Census Bureau.

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

	Re	ecoverable coppe	r	Contained copper			
Period	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total	
2017: <sup>p</sup>							
January-March	213,000	112,000	324,000	137,000	194,000	332,000	
March	77,500	36,800	114,000	49,000	67,900	117,000	
April	72,500	36,500	109,000	45,600	66,000	112,000	
May	75,100	31,900	107,000	48,600	60,900	109,000	
June	71,900	37,100	109,000	46,600	64,700	111,000	
July	73,500	30,600	104,000	44,900	61,600	107,000	
August	71,200	30,500	102,000	46,900	57,000	104,000	
September	75,000	24,500	99,500	46,700	55,000	102,000	
October	66,900	32,400	99,300	46,600	54,800	101,000	
November	72,800	31,200	104,000	46,600	59,700	106,000	
December	76,100	24,900	101,000	47,600	55,700	103,000	
January-December	868,000	391,000	1,260,000	557,000	730,000	1,290,000	
2018:							
January	66,100	32,900 <sup>r</sup>	99,000 <sup>r</sup>	46,800	56,800 r	104,000	
February	58,200	27,600 <sup>r</sup>	85,800 <sup>r</sup>	40,600	49,800 r	90,400	
March	64,700	27,800	92,500	44,300	52,800	97,100	
January-March	189,000	88,400	277,000	132,000	159,000	291,000	

### (Metric tons)

<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 production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

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

### TABLE 3 COPPER PRODUCED AT SMELTERS IN THE UNITED STATES<sup>1, 2</sup>

### (Metric tons, copper content)

	Anode
Period	production
2017: <sup>p</sup>	
January-March	149,000
March	52,200
April	40,700
May	20,100
June	37,100
July	45,800
August	47,200
September	49,000
October	29,300
November	14,500
December	37,800
January-December	470,000
2018:	
January	53,900
February	42,200
March	41,500
January–March	138,000

<sup>p</sup>Preliminary.

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

<sup>2</sup>Data 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 RECOVERY<sup>1</sup>

### (Metric tons)

	Pri	mary materials			
	Electrolytically				Total
Period	refined <sup>2</sup>	Electrowon	Total	Scrap	refined
2017: <sup>p</sup>					
January–March	152,000	137,000	290,000	10,600	300,000
March	53,200	49,000	102,000	3,240	105,000
April	42,300	45,600	87,800	3,230	91,000
May	32,800	48,600	81,400	3,390	84,800
June	33,100	46,600	79,800	3,280	83,000
July	42,400	44,900	87,300	3,220	90,600
August	49,200	46,900	96,100	3,340	99,400
September	45,700	46,700	92,400	3,310	95,700
October	32,500	46,600	79,100	3,280	82,400
November	21,100	46,600	67,700	3,240	70,900
December	30,400	47,600	77,900	3,250	81,200
January-December	482,000	557,000	1,040,000	40,100	1,080,000
2018:					
January	42,800	46,800	89,600	3,220	92,800
February	48,500	40,600	89,000	3,260	92,300
March	50,400	44,300	94,800	3,220	98,000
January-March	142,000	132,000	273,000	9,690	283,000

<sup>p</sup>Preliminary.

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

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

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

	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>
2017: <sup>p</sup>									
January-March	5,030	5,540	2,400	12,000	152,000	9,410	9,170	2,540	198,000
March	1,680	1,560	800	4,000	52,000	3,110	3,060	845	67,100
April	1,680	1,550	800	4,000	51,300	3,110	3,060	845	66,300
May	1,680	1,710	800	4,000	52,000	3,140	3,060	845	67,200
June	1,680	1,600	800	4,000	51,300	3,070	3,060	845	66,400
July	1,680	1,540	800	4,000	50,700	3,010	3,060	845	65,700
August	1,680	1,660	800	4,000	52,100	3,360	3,060	845	67,500
September	1,680	1,630	800	4,000	49,200	2,870	3,060	845	64,100
October	1,680	1,600	800	4,000	52,200	3,350	3,060	845	67,600
November	1,680	1,560	800	4,000	49,900	3,110	3,060	845	65,000
December	1,680	1,570	800	4,000	48,000	2,500	3,060	845	62,400
January-December	20,100	20,000	9,600	48,000	608,000	36,900	36,700	10,100	790,000
2018:									
January	1,680	1,540	800	4,000	51,100	3,300	3,060	845	66,300
February	1,680	1,580	800	4,000	50,000	2,940	3,060	845	64,900
March	1,680	1,540	800	4,000	46,800	3,350	3,060	845	62,100
January-March	5,030	4,660	2,400	12,000	148,000	9,600	9,170	2,540	193,000

#### (Metric tons, copper content)

<sup>p</sup>Preliminary.

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

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

<sup>3</sup>Monthly data estimated based on the monthly average of 2016 annual data.

<sup>4</sup>Does not include an estimate, based on reported 2016 annual data, of 3,120 tons per month from new scrap and 2,490 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 SEMIFABRICATES $^{\rm 1}$

	Pro	duction	Shi	pments	Stocks, end of period		
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	
2017: <sup>p</sup>							
January-March	221,000	336,000	220,000	335,000	28,600	25,300	
March	74,200	117,000	74,400	120,000	28,600	25,300	
April	72,200	112,000	72,800	104,000	28,000	33,000	
May	74,700	112,000	74,500	117,000	28,300	28,500	
June	73,300	115,000	73,000	117,000	28,600	26,400	
July	73,000	97,200	73,200	97,400	28,400	26,700	
August	75,000	111,000	74,200	112,000	29,300	25,800	
September	74,000	108,000	73,600	103,000	29,700	30,300	
October	74,100	107,000	74,100	109,000	29,700	28,500	
November	72,500	100,000	72,800	100,000	29,300	28,300	
December	72,100	93,400	72,000	91,100	29,500	30,600	
January-December	882,000	1,290,000	881,000	1,290,000	29,500	30,600	
2018:							
January	73,600	105,000	73,500	105,000	29,500	30,800	
February	72,700	101,000 <sup>r</sup>	73,400	103,000 r	28,800	28,500	
March	74,300	108,000	74,000	107,000	29,200	28,800	
January-March	221,000	314,000	221,000	315,000	29,200	28,800	

#### (Metric tons, gross weight)

<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.

# TABLE 7 CONSUMPTION OF REFINED COPPER<sup>1</sup>

# (Metric tons)

	Brass	Wire-rod	Other	
Period	mills	mills	plants <sup>2</sup>	Total
2017: <sup>p</sup>				
January-March	105,000	343,000	16,900	465,000
March	35,300	116,000	5,620	157,000
April	34,200	112,000	5,620	152,000
May	35,300	113,000	5,620	154,000
June	34,700	114,000	5,620	155,000
July	35,000	96,300	5,620	137,000
August	35,300	98,600	5,620	140,000
September	35,200	108,000	5,620	148,000
October	35,400	107,000	5,620	148,000
November	34,700	99,900	5,620	140,000
December	34,900	92,700	5,620	133,000
January-December	420,000	1,280,000	67,400	1,770,000
2018:				
January	34,600	105,000	5,620	145,000
February	35,100	100,000 <sup>r</sup>	5,620	141,000
March	34,900	107,000	5,620	148,000
January-March	105,000	312,000	16,900	434,000

<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>Monthly consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers are estimated based on the monthly average of 2016 annual data.

# TABLE 8 U.S. APPARENT CONSUMPTION OF COPPER<sup>1</sup>

#### (Metric tons)

	Refined copper	Copper in	Refined general	Refined	Stock change	Apparent
Period	production <sup>2</sup>	old scrap <sup>3</sup>	imports <sup>4</sup>	exports <sup>4</sup>	during period	consumption
2017: <sup>p</sup>						
January-March	290,000	37,000	200,000	31,200	25,000	470,000
March	102,000	12,000	73,800	9,760	5,800	172,000
April	87,800	12,000	51,400	12,200	-5,100	144,000
May	81,400	12,200	63,200	9,230	-25,200	173,000
June	79,800	12,000	79,500	6,140	1,300	164,000
July	87,300	11,900	91,800	7,140	2,900	181,000
August	96,100	12,400	54,300	6,680	25,600	130,000
September	92,400	11,800	85,400	7,190	11,400	171,000
October	79,100	12,300	69,600	5,210	14,200	142,000
November	67,700	12,000	66,500	4,400	-3,740	146,000
December	77,900	11,400	58,900	4,810	-3,450	147,000
January-December	1,040,000	145,000	820,000	94,200	42,900	1,870,000
2018:						
January	89,600	12,200	81,100	9,550	23,300	150,000
February	89,000	11,900	77,500	7,270	-4,130 <sup>r</sup>	175,000 <sup>r</sup>
March	94,800	12,200	75,200	12,100	15,600	154,000
January-March	273,000	36,300	234,000	28,900	34,700	480,000

<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 electrowon production and electrolytically-refined copper from primary materials. All refined copper produced from scrap is included in "Copper in old scrap."

<sup>3</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 2016 annual data.

<sup>4</sup>Source: U.S. Census Bureau.

# TABLE 9 CONSUMPTION OF PURCHASED COPPER-BASE SCRAP<sup>1</sup>

	Sme	lters			Brass	s and			
	and refineries		Ingot makers <sup>2</sup>		wire-roo	d mills <sup>3</sup>	Foundries, etc. <sup>2</sup>		Total scrap
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	used
2017: <sup>p</sup>									
January–March	5,190	4,760	6,190	15,400	176,000	9,770	11,000	2,870	231,000
March	1,730	1,590	2,060	5,130	60,100	3,240	3,660	956	78,400
April	1,730	1,590	2,060	5,130	59,300	3,190	3,660	956	77,600
May	1,730	1,590	2,060	5,130	60,100	3,250	3,660	956	78,400
June	1,730	1,650	2,060	5,130	59,300	3,180	3,660	956	77,700
July	1,730	1,590	2,060	5,130	58,700	3,070	3,660	956	76,900
August	1,730	1,590	2,060	5,130	60,100	3,450	3,660	956	78,700
September	1,730	1,690	2,060	5,130	57,100	2,920	3,660	956	75,200
October	1,730	1,650	2,060	5,130	60,200	3,460	3,660	956	78,900
November	1,730	1,610	2,060	5,130	57,900	3,180	3,660	956	76,200
December	1,730	1,620	2,060	5,130	55,900	2,560	3,660	956	73,600
January-December	20,800	19,300	24,700	61,600	704,000	38,000	43,900	11,500	924,000
2018:									
January	1,730	1,590	2,060	5,130	59,000	3,380	3,660	956	77,500
February	1,730	1,630	2,060	5,130	57,900	3,010	3,660	956	76,100
March	1,730	1,590	2,060	5,130	54,700	3,450	3,660	956	73,300
January-March	5,190	4,800	6,190	15,400	172,000	9,830	11,000	2,870	227,000

### (Metric tons, gross weight)

<sup>p</sup>Preliminary.

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

<sup>2</sup>Monthly data estimated based on the monthly average of 2016 annual data.

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

# TABLE 10 COPPER STOCKS AT END OF PERIOD<sup>1</sup>

# (Metric tons)

				I	Refined copper			
	Crude		Wire-rod					Total
Period	copper <sup>2</sup>	Refineries <sup>3</sup>	mills <sup>3</sup>	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex	LME <sup>5</sup>	refined
2017: <sup>p</sup>								
March	13,500	3,860	34,400	7,050	5,470	130,000	67,200	248,000
April	26,100	5,980	27,900	8,030	5,470	141,000	54,700	243,000
May	11,000	5,280	24,400	7,410	5,470	143,000	31,900	218,000
June	11,000	4,670	22,700	7,430	5,470	148,000	31,000	219,000
July	11,000	5,810	21,500	7,920	5,470	155,000	25,800	222,000
August	7,350	5,610	27,800	7,740	5,470	165,000	35,900	247,000
September	12,100	8,740	28,600	7,440	5,470	177,000	31,300	259,000
October	13,600	5,620	32,600	7,650	5,470	187,000	34,800	273,000
November	16,700	4,700	35,700	8,190	5,470	190,000	25,600	269,000
December	12,600	5,840	28,000	7,870	5,470	192,000	27,100	266,000
2018:								
January	15,000	6,190	29,000	8,040	5,470	202,000	38,800	289,000
February	14,600	7,690	21,800 r	7,880	5,470	209,000	33,200	285,000
March	9,010	4,790	22,600	8,000	5,470	212,000	47,600	301,000

<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>Copper content of blister and anode.

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

<sup>4</sup>Monthly estimates based on 2016 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

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

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

		Comex	LME
	U.S. producers	first	cash price
Period	cathode <sup>1</sup>	position <sup>2</sup>	Grade A
2017:			
March	269.122	264.122	264.040
April	263.626	258.626	258.428
May	259.902	254.902	253.608
June	265.143	260.193	258.506
July	277.821	272.883	271.162
August	300.928	295.878	293.822
September	303.468	298.405	298.585
October	314.747	309.559	308.299
November	314.717	309.417	309.581
December	314.825	309.825	308.471
Year	285.393	280.425	279.518
2018:			
January	324.640	319.390	321.137
February	322.495	316.745	317.574
March	312.083	306.683	308.227
January–March	319.739	314.273	315.646

<sup>1</sup>Sum of "Comex high grade first position" and "NY dealer premium cathode."

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

Source: Platts Metals Week.

# TABLE 12 AVERAGE BUYING PRICES FOR COPPER SCRAP

			Dealers	(New York)
				Red brass
	Brass mills	Refiners	No. 2	turnings and
Period	No. 1 scrap	No. 2 scrap	scrap	borings
2017:				
March	256.70	228.57	183.67	146.30
April	251.10	225.95	179.50	145.00
May	249.41	225.32	177.23	144.36
June	255.59	232.27	175.95	144.00
July	267.82	243.18	179.50	146.00
August	285.74	260.67	190.07	151.17
September	286.25	261.35	200.30	154.45
October	297.34	270.18	204.95	156.18
November	295.42	267.25	208.00	157.50
December	298.58	271.05	206.00	157.00
Year	271.69	245.68	189.25	149.55
2018:				
January	308.14	279.00	215.79	160.81
February	304.63	275.68	217.50	161.00
March	295.18	268.32	213.50	160.00
January-March	302.65	274.33	215.60	160.60

(Cents per pound)

Source: American Metal Market.

# TABLE 13 U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

	Ore a	and concentra	ates <sup>2</sup>	Matte,	ash, and precip	pitates <sup>3</sup>	Bli	Blister and anodes				Refined	
		2018			2018 January–		2018				2018		
Country or			January-					January-				January-	
locality	2017	March	March	2017	March	March	2017	March	March	2017	March	March	
Belgium				69		33				(4)		8,100	
Bolivia										1,560		312	
Brazil										3,580		297	
Canada	25			284	75	123				209,000	15,500	50,600	
Chile										486,000	47,800	155,000	
China			1	33						48	6	17	
Congo (Kinshasa)										9,190		2,780	
Finland							359	52	86	4			
Germany				7			(4)		(4)	2,310	172	286	
India										224			
Japan				76			2	(4)	(4)	4,630	330	956	
Malaysia							126	18	54				
Mexico	14,000	1,500	18,500	588	59	197				75,200	6,870	15,200	
Netherlands				166		52	3	(4)	(4)	3			
Peru										18,000	2,010	3,010	
South Africa										1,510			
Other	9			700		17	14	(4)	1	1,230	201	1,690	
Total	14,100	1,500	18,500	1,920	135	422	504	70	142	813,000	72,900	238,000	

### (Metric tons, copper content)

-- Zero.

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

<sup>2</sup>Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

<sup>3</sup>Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

<sup>4</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

# TABLE 14 U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

	Ore a	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			ster and anoo	les	Refined		
Country or		20			2018			2018			2018	
			January-			January-			January-			January–
locality	2017	March	March	2017	March	March	2017	March	March	2017	March	March
Belgium				4,860	276	688	447	18	51	(4)		
Canada	23,500	1,650	4,980	17,200	1,230	6,440	3,290	321	1,390	18,300	2,730	5,060
China	70,800	5,490	15,500	392	73	228	249	35	65	10,100	5	6
Germany				576	4	33	215		31	14		2
Hong Kong							1,110	40	139	1		
India	1			(4)		17	730	85	154	15	5	5
Italy				73		7	325		40	14	5	17
Japan	1,540	28	28	189			80	15	15	16	(4)	2
Korea, Republic of	99	2,150	2,150	397	72	200	1,780	156	388	2,460	400	412
Mexico	141,000	14,500	40,100	99			102	2	5	62,600	8,930	23,300
Singapore							40		11	5	(4)	(4)
Spain				124		208	121		20	1	(4)	(4)
Switzerland							31		6	5		2
Taiwan				146			122			19	2	12
Vietnam										503	1	1
Other	137	7	20	1,090	143	275	1,040	44	158	142	17	61
Total	237,000	23,800	62,800	25,100	1,800	8,100	9,690	715	2,480	94,200	12,100	28,900

### (Metric tons, copper content)

-- Zero.

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

<sup>2</sup>Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

<sup>3</sup>Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

<sup>4</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

# TABLE 15 U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP<sup>1</sup>

		Unalloyed		Alloyed				
		2018		2018	018			
Country or			January-	_		January–		
territory	2017	March	March	2017	March	March		
Canada	18,900	1,610	4,610	81,900	6,910	19,800		
Chile	57	41	41	301	19	37		
Colombia	598		60	1,360	105	232		
Costa Rica	636	93	170	1,060	43	206		
Guatemala	36	10	22	446	25	83		
Honduras	61			352	41	99		
Mexico	10,400	905	2,640	35,300	3,260	8,720		
Nicaragua	38			321	20	145		
Pakistan	694	56	264					
Panama	1,440	163	434	790	61	222		
Venezuela	958	230	1,170	1,870	296	334		
Other	1,700	190	544	6,120	525	1,630		
Total	35,500	3,300	9,950	130,000	11,300	31,500		
Zero								

## (Metric tons, gross weight)

-- Zero.

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

# TABLE 16U.S. EXPORTS OF COPPER SCRAP1

(Metric tons, gross weight)	
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				Unalloyed						Alloyed					
		2018								2018					
		No. 1		No. 2		Other			Segregated		Unsegregated				
Country or		-	January–		January–		January-			January-		January–			
territory	2017	March	March	March	March	March	March	2017	March	March	March	March			
Belgium	7,870	427	796	251	483	119	544	8,560	19	117	636	1,370			
Canada	43,700					4,570	12,900	49,200			2,500	8,290			
China	351,000	15,700	33,500	11,700	30,300	9,300	28,100	335,000	5,030	16,900	6,670	22,400			
Germany	19,700	1,240	3,780	625	993	117	211	10,900	363	1,010	793	2,270			
Hong Kong	6,950	188	674	72	184	1,080	1,570	31,800	1,080	2,990	1,560	4,910			
India	4,710	608	988	186	431	141	279	20,000	1,040	2,860	224	743			
Japan	11,800	171	438	1,230	2,770	362	1,030	9,300	57	164	2,180	5,360			
Korea, Republic of	17,000	1,550	3,760	226	467	275	1,050	14,400	295	1,350	856	1,970			
Mexico	3,500	300	1,050	2	3	2	2	507		23	12	247			
Netherlands	7,260	288	1,140	61	81	458	1,250	1,120	21	61	146	401			
Pakistan	2,340	22	53	20	72			5,780	54	108	437	1,380			
Spain	1,220	36	143		107		59	6,280	97	488	550	1,740			
Taiwan	5,600	575	1,480	102	177	161	721	2,900	59	192	432	1,590			
Thailand	204	238	403	66	243	197	378	472	74	298	1,950	3,610			
Other	9,580	817	2,250	407	1,190	1,370	3,950	13,600	606	1,980	1,870	7,470			
Total	492,000	22,200	50,400	15,000	37,500	18,200	52,100	510,000	8,800	28,500	20,800	63,700			

-- Zero.

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