

# Mineral Industry Surveys

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## COPPER IN NOVEMBER 2018

In November 2018, domestic mine production of recoverable copper was 102,000 metric tons (t). The average daily mine production was 3,410 t, an increase of 4% from that in October and a slight decrease from that in November 2017 (fig. 1). Year-to-date recoverable mine production through November 2018 was 1.11 million metric tons (Mt), a decline of 4% relative to the same period in 2017 (table 2).

Total refinery production in the United States was 96,400 t in November 2018; data for electrolytic and electrowon output, as well as refined production from scrap, are in table 4. The average daily total refinery production was 3,210 t, an increase of 7% compared with that in October and 36% more than that in November 2017 (fig. 1). Year-to-date refinery production through November 2018 was 1.02 Mt, a slight increase relative to the same period in 2017 (table 4).

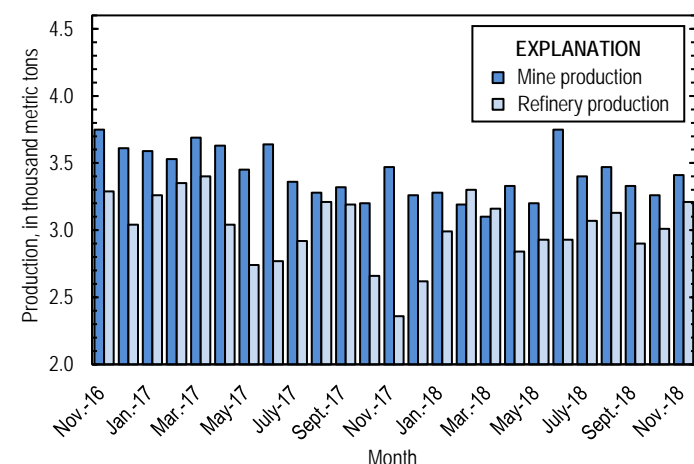


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from November 2016 through November 2018.

Smelter production in November 2018 was 45,300 t. The average daily smelter output was 1,510 t, 3% lower than that in October and a more than threefold increase compared with the daily average in November 2017, when two U.S. smelters were temporarily shut down. Year-to-date smelter production through

November 2018 was 495,000 t, 14% greater than that through November 2017 (table 3).

## Prices

The average November 2018 COMEX spot copper price was \$2.75 per pound, essentially unchanged from \$2.76 per pound in October and 11% lower than \$3.09 per pound in November 2017 (fig. 2, table 11). The average price of New York dealers' number 2 scrap in November 2018 was \$1.85 per pound, a slight decline from \$1.88 per pound in October and 11% less than \$2.08 per pound in November 2017 (fig. 2, table 12).

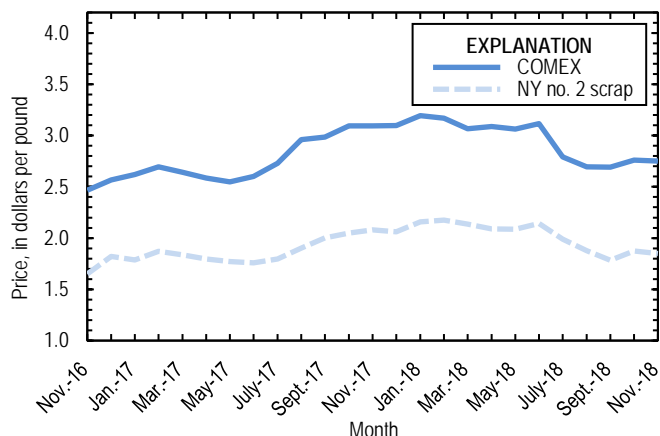


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from November 2016 through November 2018. Sources: American Metal Market, Platts Metals Week.

## Stocks

Refined copper stocks in the United States fell for the fourth consecutive month and totaled 258,000 t at the end of November 2018, a decrease of 9% from those in October, 3% lower than those in November 2017, and 28% less than the recent peak in July. COMEX stocks fell by 13%, stocks at wire-rod mills declined by 5%, and London Metal Exchange Ltd. stocks in U.S. warehouses were 7% lower compared with those at the end of October (fig. 3, table 10).

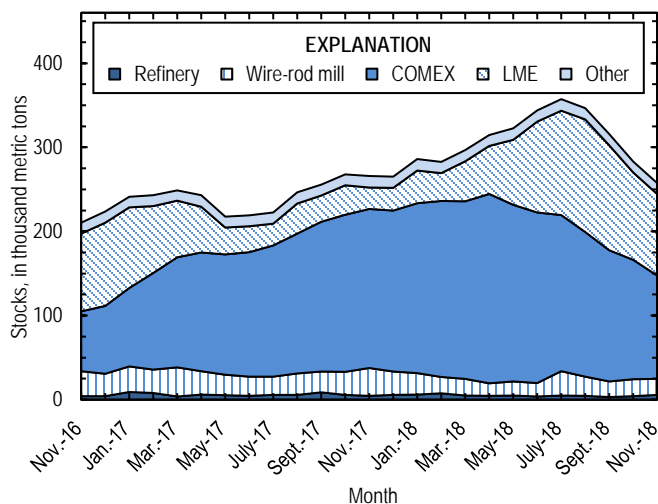


Figure 3. Monthly domestic refined copper stocks, by type, from November 2016 through November 2018. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

## Industry News

PolyMet Mining, Inc. (St. Paul, MN) announced on November 1 that it received multiple permits to construct and operate the polymetallic NorthMet project in northeastern Minnesota, which would be the first nonferrous mine to operate in the State. The company forecast the mine to produce nearly 545,000 t of copper over a 20-year mine life, beginning in 2021. In addition to copper, the deposit was expected to produce byproduct nickel, cobalt, platinum, palladium, gold, and silver, in decreasing order of abundance (Mughal, 2018; S&P Global Market Intelligence, 2019).

## References Cited

Mughal, Sarah, 2018, PolyMet nets key permits for NorthMet project in Minnesota: S&P Global Market Intelligence, November 1. (Accessed November 9, 2018, via <http://www.snl.com/>.)  
 S&P Global Market Intelligence, 2019, NorthMet property profile: New York, NY, S&P Global Market Intelligence. (Accessed March 14, 2019, via <http://www.snl.com/>.)

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TABLE 1  
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES<sup>1</sup>

(Metric tons of copper content, unless otherwise specified)

	Source table <sup>2</sup>	2017 <sup>p</sup>	2018			
			September	October	November	January– November
Production:						
Primary:						
Mine, recoverable	(2)	1,260,000	99,800	101,000	102,000	1,110,000
Smelter	(3)	470,000	40,800	48,200	45,300	495,000
Refinery:						
Electrolytic, domestic and foreign	(4)	482,000	40,200	46,100	50,000	492,000
Electrowon	(4)	557,000	43,000	43,100	43,000	486,000
Total	(4)	1,040,000	83,200	89,200	93,000	979,000
Secondary recoverable copper: <sup>3</sup>						
Refineries	(5)	40,100	3,810	4,180	3,370	37,600
Ingot makers <sup>4</sup>	(5)	57,600	4,800	4,800	4,800	52,800
Brass and wire-rod mills	(5)	645,000	54,700	56,100	55,300	599,000
Foundries, etc. <sup>4</sup>	(5)	46,800	3,900	3,900	3,900	42,900
Consumption:						
Apparent	(8)	1,870,000	173,000	159,000	144,000	1,640,000
Refined (reported)	(7)	1,800,000	162,000	152,000	153,000	1,670,000
Purchased copper-base scrap (gross weight)	(9)	924,000	78,600	79,400	78,700	855,000
Stocks at end of period:						
Total refined	(10)	265,000	316,000	283,000	258,000	258,000
Blister, etc.	(10)	12,600	9,110	8,940	7,380	7,380
Price, U.S. producers cathode (cents per pound) <sup>5</sup>	(11)	285.393	276.107	282.498	281.598	300.529
Imports: <sup>6</sup>						
Ore and concentrates	(13)	14,000	1,510	2,380	3,120	29,900
Refined	(13)	813,000	67,300	64,700	51,000	733,000
Exports: <sup>6</sup>						
Ore and concentrates	(14)	237,000	24,400	10,800	37,200	226,000
Refined	(14)	94,200	15,600	31,000	36,200	177,000

<sup>p</sup>Preliminary.

<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<sup>1</sup>

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total
2017: <sup>p</sup>						
January–November	792,000	366,000	1,160,000	510,000	674,000	1,180,000
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	68,800	32,900	102,000	46,800	56,900	104,000
February	61,500	27,700	89,200	40,500	50,700	91,300
March	68,200	27,800	96,000	44,300	53,700	98,000
April	65,400	34,600	100,000	43,200	58,800	102,000
May	69,300	29,800	99,100	46,000	55,200	101,000
June	70,600	41,900	113,000	44,900	70,100	115,000
July	66,800	38,500	105,000	46,000	61,400	107,000
August	69,100	38,600	108,000	45,400	64,600	110,000
September	63,000	36,800	99,800	43,000	59,100	102,000
October	64,300	36,800 <sup>r</sup>	101,000	43,100	60,400	103,000
November	64,300	38,000	102,000	43,000	61,800	105,000
January–November	731,000	383,000	1,110,000	486,000	653,000	1,140,000

<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 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)

Period	Anode production
2017: <sup>P</sup>	
January–November	433,000
November	14,500
December	37,800
January–December	470,000
2018:	
January	53,900
February	42,200
March	41,500
April	44,800
May	39,000
June	45,700
July	47,500
August	46,100
September	40,800
October	48,200
November	45,300
January–November	495,000

<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)

Period	Primary materials			Scrap	Total refined
	Electrolytically refined <sup>2</sup>	Electrowon	Total		
2017: <sup>p</sup>					
January–November	451,000	510,000	961,000	36,800	998,000
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	40,500	89,000	3,260	92,300
March	50,400	44,300	94,800	3,220	98,000
April	38,700	43,200	81,900	3,260	85,200
May	41,600	46,000	87,500	3,330	90,900
June	39,800	44,900	84,600	3,400	88,000
July	45,900	46,000	91,900	3,390	95,300
August	48,400	45,400	93,900	3,220	97,100
September	40,200	43,000	83,200	3,810	87,000
October	46,100	43,100	89,200	4,180	93,400
November	50,000	43,000	93,000	3,370	96,400
January–November	492,000	486,000	979,000	37,600	1,020,000

<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<sup>1</sup>

(Metric tons, copper content)

Period	Refineries <sup>2</sup>		Ingot makers <sup>3</sup>		Brass and wire-rod mills		Foundries, etc. <sup>3</sup>		Total <sup>4</sup>
	New scrap <sup>6</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2017: <sup>p</sup>									
January–November	18,400	18,400	8,800	44,000	560,000	34,400	33,600	9,300	727,000
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
April	1,680	1,580	800	4,000	50,800	3,270	3,060	845	66,100
May	1,680	1,650	800	4,000	53,000	3,180	3,060	845	68,200
June	1,680	1,720	800	4,000	52,400	2,960	3,060	845	67,500
July	1,680	1,710	800	4,000	51,600	3,060	3,060	845	66,800
August	1,680	1,540	800	4,000	51,600	3,220	3,060	845	66,700
September	1,680	2,130	800	4,000	51,900	2,850	3,060	845	67,300
October	1,680	2,500	800	4,000	52,700	3,490	3,060	845	69,000
November	1,680	1,690	800	4,000	53,900	1,470	3,060	845	67,400
January–November	18,400	19,200	8,800	44,000	566,000	33,100	33,600	9,300	732,000

<sup>6</sup>Estimated. <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 3,121 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<sup>1</sup>

(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
2017: <sup>P</sup>						
January–November	809,000	1,230,000	809,000	1,230,000	29,300	24,100
November	72,500	106,000	72,800	108,000	29,300	24,100
December	72,100	92,500	72,000	89,800	29,500	26,800
January–December	882,000	1,320,000	881,000	1,320,000	29,500	26,800
2018:						
January	73,600	114,000	73,500	114,000	29,500	26,700
February	72,700	107,000	73,400	107,000	28,800	26,400
March	74,300	115,000	74,000	117,000	29,200	24,200
April	73,600	103,000	73,600	111,000	29,200	16,400
May	73,600	115,000	74,000	113,000	28,800	18,400
June	73,900	118,000	73,800	114,000	28,900	22,200
July	73,400	99,300	73,700	102,000	28,700	19,600
August	73,800	124,000	74,200	120,000	28,300	23,900
September	73,500	110,000	73,300	111,000	28,400	23,000
October	74,300	114,000	73,900	120,000	28,800	16,900
November	73,500	113,000	73,400	109,000	28,900	20,400
January–November	810,000	1,230,000	811,000	1,240,000	28,900	20,400

<sup>P</sup>Preliminary.

<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)

Period	Brass mills	Wire-rod mills	Other plants <sup>2</sup>	Total
2017: <sup>p</sup>				
January–November	385,000	1,220,000	55,700	1,660,000
November	34,700	106,000	5,070	145,000
December	34,900	91,800	5,070	132,000
January–December	420,000	1,320,000	60,800	1,800,000
2018:				
January	34,600	114,000	5,070	154,000
February	35,100	107,000	5,070	147,000
March	34,900	115,000	5,070	155,000
April	35,100	105,000	5,070	145,000
May	34,900	115,000	5,070	155,000
June	34,900	106,000	5,070	146,000
July	34,800	104,000	5,070	144,000
August	35,100	121,000	5,070	161,000
September	35,100	122,000	5,070	162,000
October	34,900	112,000	5,070	152,000
November	34,700	114,000	5,070	153,000
January–November	384,000	1,230,000	55,700	1,670,000

<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>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)

Period	Refined copper production <sup>2</sup>	Copper in old scrap <sup>3</sup>	Refined general imports <sup>4</sup>	Refined exports <sup>4</sup>	Stock change during period	Apparent consumption
2017: <sup>p</sup>						
January–November	961,000	133,000	761,000	89,400	42,900	1,720,000
November	67,700	12,000	66,500	4,400	-1,620	143,000
December	77,900	11,400	58,900	4,810	-728	144,000
January–December	1,040,000	145,000	820,000	94,200	42,100	1,870,000
2018:						
January	89,600	12,200	81,100	9,550	20,300	153,000
February	89,000	11,900	77,500	7,270	-2,750	174,000
March	94,800	12,200	75,200	12,100	14,000	156,000
April	81,900	12,200	62,400	13,700	17,700	125,000
May	87,500	12,200	64,600	13,800	8,150	142,000
June	84,600	12,000	66,200	11,200	21,000	131,000
July	91,900	12,100	59,500	11,300	13,500	139,000
August	93,900	12,100	48,300	15,700	-10,200	149,000
September	83,200	12,300	62,300	15,600	-30,900	173,000
October	89,200	13,300	54,400	31,000	-32,900	159,000
November	93,000	10,500	51,000	36,200	-25,700	144,000
January–November	979,000	133,000	703,000	177,000	-7,870	1,640,000

<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>Includes electrolytic production and electrolytically-refined copper from primary materials. All refined copper consumed in scrap form 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>

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers <sup>2</sup>		Brass and wire-rod mills <sup>3</sup>		Foundries, etc. <sup>2</sup>		Total scrap used
	New scrap <sup>e</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2017: <sup>p</sup>									
January–November	19,000	17,700	22,700	56,500	648,000	35,500	40,200	10,500	850,000
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
April	1,730	1,630	2,060	5,130	58,800	3,380	3,660	956	77,400
May	1,730	1,700	2,060	5,130	61,000	3,270	3,660	956	79,500
June	1,730	1,770	2,060	5,130	60,400	3,030	3,660	956	78,700
July	1,730	1,770	2,060	5,130	59,600	3,110	3,660	956	78,100
August	1,730	1,590	2,060	5,130	59,600	3,320	3,660	956	78,000
September	1,730	2,200	2,060	5,130	59,900	2,970	3,660	956	78,600
October	1,730	1,590	2,060	5,130	60,700	3,580	3,660	956	79,400
November	1,730	1,750	2,060	5,130	61,900	1,510	3,660	956	78,700
January–November	19,000	18,800	22,700	56,500	654,000	34,000	40,200	10,500	855,000

<sup>e</sup>Estimated. <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)

Period	Crude copper <sup>2</sup>	Refined copper						Total refined
		Refineries <sup>3</sup>	Wire-rod mills <sup>3</sup>	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex	LME <sup>5</sup>	
2017: <sup>p</sup>								
November	16,700	4,700	32,900	8,190	5,470	189,000	25,600	266,000
December	12,600	5,840	27,800	7,870	5,470	191,000	27,100	265,000
2018:								
January	15,000	6,190	25,500	8,040	5,470	202,000	38,800	286,000
February	14,600	7,690	19,400	7,880	5,470	209,000	33,200	283,000
March	9,010	4,790	19,900	8,000	5,470	211,000	47,600	297,000
April	9,880	4,500	15,000	7,870	5,470	225,000	57,000	315,000
May	8,130	4,960	16,800	8,190	5,470	210,000	77,200	323,000
June	14,300	3,590	16,100	7,980	5,470	203,000	108,000	344,000
July	9,670	4,980	28,700	8,180	5,470	186,000	124,000	357,000
August	9,010	4,600	22,600	7,890	5,470	172,000	134,000	347,000
September	9,110	3,120	18,500	7,710	5,470	156,000	125,000	316,000
October	8,940	4,290	19,900	7,460	5,470	142,000	104,000	283,000
November	7,380	5,580	19,000	7,660	5,470	123,000	96,900	258,000

<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>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

(Cents per pound)

Period	U.S. producers cathode <sup>1</sup>	Comex first position <sup>2</sup>	LME cash price Grade A
2017:			
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
April	314.129	308.754	310.169
May	312.402	306.402	309.409
June	318.152	311.714	315.436
July	285.626	279.126	283.387
August	276.087	269.387	273.936
September	276.107	269.232	273.044
October	282.498	275.935	281.918
November	281.598	275.098	280.882
January–November	300.529	294.406	297.738

<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

(Cents per pound)

Period	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
2017:				
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
April	299.33	274.36	209.02	158.00
May	297.50	271.68	208.59	158.55
June	301.67	274.14	214.17	160.57
July	269.95	239.48	198.93	151.29
August	261.00	229.07	187.80	145.43
September	261.16	228.50	178.45	141.47
October	267.65	239.80	187.50	141.00
November	267.50	240.10	185.00	141.00
January–November	284.88	256.38	201.48	152.65

Source: American Metal Market.

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

(Metric tons, copper content)

Country or locality	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Blister and anodes			Refined		
	2018			2018			2018			2018		
	2017	November	January– November	2017	November	January– November	2017	November	January– November	2017	November	January– November
Belgium	--	--	--	69	32	283	--	--	--	(4)	--	10,100
Bolivia	--	--	--	--	--	--	--	--	--	1,560	--	1,460
Brazil	--	--	--	--	--	--	--	--	--	3,580	--	297
Canada	6	--	40	284	69	568	--	--	(4)	209,000	12,300	160,000
Chile	--	--	--	--	--	--	--	--	--	486,000	28,200	461,000
China	--	--	8	33	--	2	--	--	--	50	5	105
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	9,190	--	3,380
Finland	--	--	--	--	--	--	359	17	292	4	--	--
Germany	--	--	--	7	--	--	(4)	--	(4)	2,310	184	1,150
India	--	--	--	--	--	--	--	--	--	224	--	(4)
Japan	--	--	--	76	--	10	2	--	2	4,630	219	3,560
Malaysia	--	--	--	--	--	--	126	--	54	--	--	--
Mexico	14,000	3,120	29,900	588	41	475	--	--	--	75,200	4,550	57,100
Netherlands	--	--	--	166	--	109	3	--	2	3	--	(4)
Peru	--	--	--	--	--	--	--	--	--	18,000	4,000	15,100
South Africa	--	--	--	--	--	--	--	--	--	1,510	--	963
Other	9	--	--	397	--	109	14	1	5	1,230	1,530	18,800
Total	14,000	3,120	29,900	1,620	141	1,560	504	17	354	813,000	51,000	733,000

-- 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 ½ unit.

Source: U.S. Census Bureau.

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

(Metric tons, copper content)

Country or locality	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Blister and anodes			Refined		
	2018			2018			2018			2018		
	2017	November	January– November	2017	November	January– November	2017	November	January– November	2017	November	January– November
Belgium	--	--	--	4,860	215	2,030	447	18	211	(4)	--	--
Canada	23,500	1,090	16,200	17,300	2,030	18,100	3,290	266	4,090	18,300	2,960	32,700
China	70,800	--	47,500	392	23	1,600	249	12	190	10,100	23,000	45,600
Germany	--	4,810	4,810	576	18	1,020	215	64	262	14	--	2
Hong Kong	--	--	--	--	--	--	1,110	4	462	1	--	(4)
India	1	--	--	(4)	--	44	730	39	551	15	--	9
Italy	--	--	1	73	--	10	325	1	241	14	2	23
Japan	1,540	5,710	5,760	189	57	172	80	--	36	16	1	14
Korea, Republic of	99	--	4,690	397	77	764	1,780	152	1,520	2,460	1	2,050
Mexico	141,000	20,200	129,000	99	--	1,430	102	3	80	62,600	10,200	96,800
Singapore	--	--	--	--	--	6	40	10	40	5	(4)	3
Spain	--	2,380	10,500	124	--	210	121	20	101	1	--	1
Switzerland	--	--	--	--	--	--	31	--	17	5	--	4
Taiwan	--	--	--	146	19	34	122	--	40	19	--	12
Vietnam	--	--	--	--	--	--	--	--	--	503	--	1
Other	137	3,060	6,660	1,090	567	2,270	1,040	106	673	142	5	337
Total	237,000	37,200	226,000	25,200	3,010	27,700	9,690	694	8,520	94,200	36,200	177,000

-- 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 ½ unit.

Source: U.S. Census Bureau.



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

(Metric tons, gross weight)

Country or locality	Unalloyed			Alloyed		
	2018			2018		
	2017	November	January– November	2017	November	January– November
Canada	18,900	1,530	15,400	81,900	5,450	66,600
Chile	57	--	177	301	74	321
Colombia	598	40	367	1,360	75	866
Costa Rica	636	5	370	1,060	34	685
Guatemala	36	--	89	446	29	467
Honduras	61	1	4	352	74	477
Mexico	10,400	1,020	10,100	35,300	3,440	35,500
Nicaragua	38	--	19	321	--	225
Pakistan	694	--	567	--	--	--
Panama	1,440	27	1,010	790	33	597
Venezuela	958	--	2,540	1,870	29	620
Other	1,720	171	1,510	6,190	404	6,930
Total	35,500	2,790	32,100	130,000	9,640	113,000

-- Zero.

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

Source: U.S. Census Bureau.

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

(Metric tons, gross weight)

Country or locality	Unalloyed							Alloyed				
	2018							2018				
	No. 1		No. 2		Other			Segregated		Unsegregated		
	2017	January– November	2017	January– November	2017	January– November	2017	2017	January– November	2017	January– November	2017
Belgium	7,870	1,020	6,110	893	8,140	322	3,160	8,560	98	864	1,030	9,310
Canada	43,800	--	--	--	--	4,050	49,000	49,700	--	--	3,650	35,900
China	352,000	318	62,800	926	63,600	1,580	63,600	336,000	955	35,700	941	42,500
Germany	19,700	1,590	15,500	940	4,710	197	1,440	10,900	142	2,330	1,210	10,200
Hong Kong	5,580	395	4,910	273	2,330	1,120	10,900	30,800	584	6,480	1,530	15,500
India	4,810	230	7,000	335	3,540	392	2,320	20,100	2,410	20,600	1,920	9,320
Japan	11,800	650	4,290	3,080	16,800	598	4,190	9,300	1,390	4,390	2,150	19,100
Korea, Republic of	17,200	3,320	23,600	1,460	7,100	1,820	9,870	14,100	1,670	9,790	1,590	11,900
Mexico	3,500	246	3,650	--	5	(2)	80	507	2	51	87	858
Netherlands	7,260	115	3,510	39	333	353	3,770	1,120	--	119	81	1,700
Pakistan	3,790	125	1,120	34	457	--	8	5,780	11	253	4,050	14,500
Spain	1,220	28	360	--	153	20	99	6,280	253	2,130	773	6,910
Taiwan	5,750	771	6,750	205	3,820	825	4,590	2,900	422	4,210	844	11,600
Thailand	204	19	1,160	--	439	40	1,520	472	19	561	712	10,600
Other	9,690	3,900	22,800	1,750	14,400	4,320	29,300	13,600	3,780	24,000	7,850	51,100
Total	494,000	12,700	163,000	9,940	126,000	15,600	184,000	510,000	11,700	112,000	28,400	251,000

-- Zero.

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

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.