Mineral Industry Surveys

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COPPER IN SEPTEMBER 2022

In September 2022, mine output of recoverable copper in the United States was 102,000 metric tons (t). The average daily mine production was 3,400 t, an increase of 3% from that in August and 5% lower than that in September 2021 (fig. 1). Year-to-date recoverable mine production was 931,000 t, a slight increase compared with that through September 2021 (table 2).

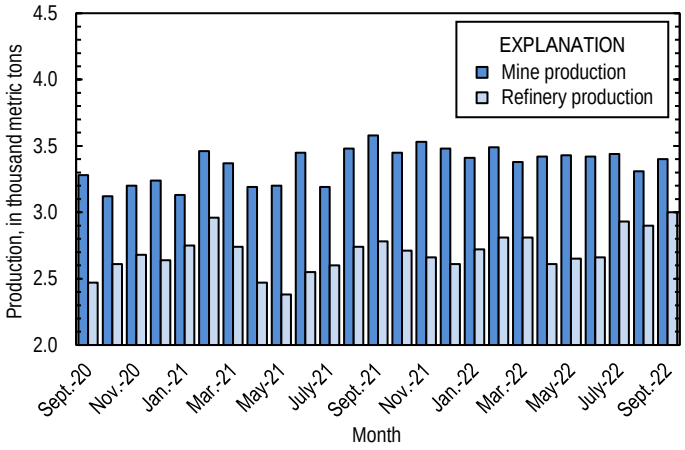

Figure 1. Average daily copper mine (recoverable) and refinery (primary and secondary) production in the United States from September 2020 through September 2022.

Owing to indefinite closures of ASARCO LLC's smelter in Arizona and electrolytic refinery in Texas since October 2019, smelter and electrolytic refinery production reported to the U.S. Geological Survey in September 2022 were withheld to avoid disclosing company proprietary data. Smelter and electrolytic refinery output in tables 3 and 4 are estimates based on information in annual and quarterly company reports. As of September 2022, ASARCO had not publicly announced when operations were expected to resume. The company's three copper mines and two electrowon refineries in Arizona continued to operate during the smelter and electrolytic refinery stoppages (Grupo México, S.A.B. de C.V., 2021, p. 83).

Estimated domestic smelter output was 40,000 t in September 2022. Year-to-date estimated smelter production was 315,000 t, 17% higher than that through September 2021 (table 3).

Total U.S. refinery production was 90,000 t in September 2022; data for electrolytic and electrowon output, as well as refined production from scrap, are reported in table 4. The average daily refinery production was 3,000 t, an increase of 3% from that in August and 8% greater than that in September 2021 (fig. 1). Year-to-date refinery output was 761,000 t, an increase of 5% relative to the same time period in 2021.

Prices

In September 2022, the average Commodity Exchange Inc. (COMEX) copper price was $3.48 per pound, a decrease of 4% from $3.62 per pound in August and 18% less than $4.27 per pound in September 2021 (fig. 2, table 11). The average U.S. dealers buying price of number 2 copper scrap was $2.55 per pound in September 2022, an increase of 4% from $2.44 per pound in August and 20% lower than $3.19 per pound in September 2021 (fig. 2, table 12).

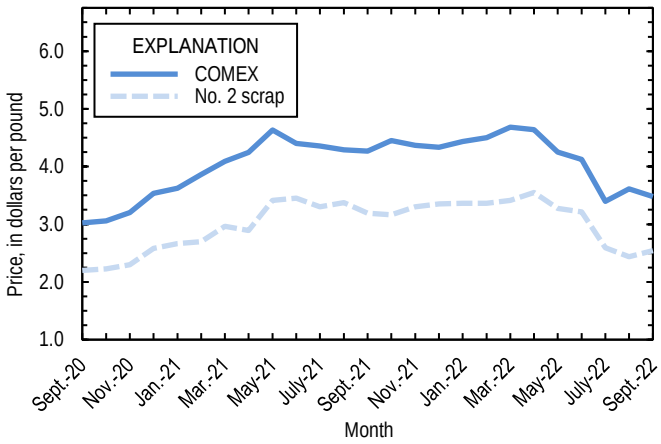

Figure 2. Monthly average Commodity Exchange Inc. (COMEX) copper price and no. 2 copper scrap U.S. dealers buying price from September 2020 through September 2022. Sources: Fastmarkets-AMM and S&P Global Platts Metals Week.

Stocks

Refined copper stocks in the United States totaled 115,000 t at the end of September 2022, a slight decrease compared with those in August and 34% higher than those in September 2021.

COMEX stocks decreased by 5,230 t (11%) and London Metal Exchange Ltd. stocks in U.S. warehouses were 725 t lower relative to those at the end of August (fig. 3, table 10).

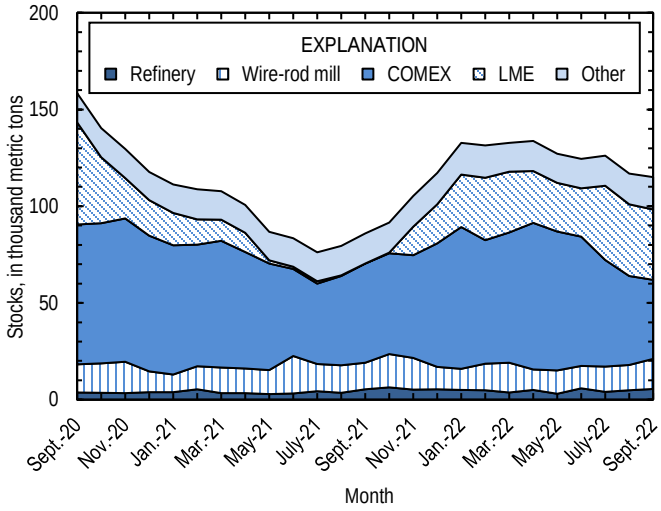

Figure 3. Domestic refined copper stocks at end of month, by type, from September 2020 through September 2022. Sources: London Metal Exchange Ltd., S&P Global Platts Metals Week, and U.S. Geological Survey.

Industry News

Peru.—On September 26, Anglo American plc announced the start of commercial operations at the Quellaveco Mine. The company expected the mine to produce between 80,000 and 100,000 t of copper in 2022 and an average of 300,000 metric tons per year (t/y) during the first ten years of operation (Anglo American plc, 2022).

United States.—Rio Tinto Group approved work to begin underground operations at the Bingham Canyon Mine in Utah. The project was expected to supplement output from the open pit by 30,000 t of copper in concentrates through 2027, with the first ore production anticipated in early 2023. Rio Tinto was evaluating additional underground expansion opportunities and planned to complete a feasibility study in 2023 (Rio Tinto Group, 2022).

Nevada Copper Corp. restarted development activities at the Pumpkin Hollow Mine in Nevada to accumulate an ore stockpile ahead of the expected mill restart in mid-2023. The mine opened in December 2019 but has been significantly delayed by geotechnical issues and the coronavirus disease 2019 (COVID-19) pandemic. Nevada Copper halted operations in June 2022 after a weak rock structure was encountered while opening access to an ore zone (Nevada Copper Corp., 2022a, p. 2–3; 2022b).

CRU International Ltd. (2022, p. 12) reported that Ames Copper Group was in the process of starting up a new copper plant in Shelby, NC, the first secondary copper smelter in the United States since 2001. Once fully operational, the facility was expected to produce up to 50,000 t/y of copper anodes from scrap (Taylor, 2021).

References Cited

Anglo American plc, 2022, Anglo American to begin copper shipments from Quellaveco: London, United Kingdom, Anglo American plc press release, September 26. (Accessed November 7, 2022, at https://www.angloamerican.com/media/press-releases/2022/26-09-2022.)

CRU International Ltd., 2022, CRU copper monitor: London, United Kingdom, CRU International Ltd., September 30, 21 p. (Accessed October 14, 2022, via http://www.crugroup.com/.)

Grupo México, S.A.B. de C.V., 2021, Reporte anual 2020 [Annual report 2020]: Mexico City, Mexico, Grupo México, S.A.B. de C.V., [329] p. (Accessed June 4, 2021, at https://www.gmexico.com/GMDocs/ReportesFinancieros/ING/2020/RF_EN_2020_BMV.pdf.) [In Spanish.]

Nevada Copper Corp., 2022a, Management's discussion and analysis for the three and six months ended June 30, 2022: Vancouver, British Columbia, Canada, Nevada Copper Corp., August 12, 23 p. (Accessed August 18, 2022, at https://nevadacopper.com/site/assets/files/4269/ncu_mda_june_30_2022_for_sedar_filing.pdf.)

Nevada Copper Corp., 2022b, Nevada Copper provides update on restart activities at Pumpkin Hollow and the proposed restart financing package: Yerington, NV, Nevada Copper Corp. news release, September 26, 7 p. (Accessed October 2, 2022, at https://nevadacopper.com/site/assets/files/4272/2022-09-26-ncu-nr.pdf.)

Rio Tinto Group, 2022, Rio Tinto to start underground mining at Kennecott copper operations: Salt Lake City, UT, Rio Tinto Group media release, September 27. (Accessed October 3, 2022, at https://www.riotinto.com/news/releases/2022/Rio-Tinto-to-start-underground-mining-at-Kennecott-copper-operations.)

Taylor, Brian, 2021, Ames Copper to use SMS secondary furnace technology: Recycling Today, January 4. (Accessed May 17, 2021, at https://www.recyclingtoday.com/news/sms-ames-copper-recycling-north-carolina-equipment/.)

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TABLE 1

SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES[1]

(Metric tons, copper content, unless otherwise specified)

	Source table[2]	2021[p]	2022			
			July	August	September	January–September
Production:						
Primary (from ore):						
Mine, recoverable[3]	(2)	1,230,000	107,000 [r]	102,000 [r]	102,000	931,000
Smelter[e, 4]	(3)	360,000	40,000	40,000	40,000	315,000
Refinery:						
Electrolytic[e]	(4)	360,000	40,000	40,000	40,000	315,000
Electrowon	(4)	562,000	47,600 [r]	46,700 [r]	46,800	416,000
Total	(4)	922,000	87,600 [r]	86,700 [r]	86,800	731,000
Secondary (from copper-base scrap):[5]						
Refineries[6]	(5)	48,900	3,250	3,260	3,220	30,300
Ingot makers[e, 7]	(5)	51,600	4,300	4,300	4,300	38,700
Brass and wire-rod mills	(5)	655,000	53,900	54,800	54,100	486,000
Foundries, etc.[e, 7]	(5)	38,800	3,230	3,230	3,230	29,100
Consumption:						
Reported, refined copper	(7)	1,770,000	152,000	146,000	141,000	1,340,000
Apparent, primary refined and copper from old scrap[8]	(8)	1,960,000	178,000	142,000 [r]	150,000	1,440,000
Reported, purchased copper-base scrap (gross weight)	(9)	919,000	74,800	75,800	75,100	677,000
Stocks at end of period:						
Refined[9]	(10)	117,000	126,000	117,000	115,000	115,000
Blister and anodes	(10)	16,100	12,900	14,200	14,900	14,900
Price, U.S. producers cathode (cents per pound)[10]	(11)	432.264	350.610	372.500	359.021	422.282
Imports for consumption:[11]						
Ore and concentrates	(13)	11,000	2,250	1,780	1,430	10,400
Refined	(13)	919,000	80,900	36,400	50,700	606,000
Exports:[11]						
Ore and concentrates	(14)	347,000	19,900	34,000	36,800	247,000
Refined	(14)	47,600	1,900	3,060	2,470	23,100

[e]Estimated. [p]Preliminary. [r]Revised.

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

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

[3]Includes the recoverable copper content of concentrates (of copper and other metals), copper produced by solvent extraction and electrowinning, and copper recovered as precipitates.

[4]May contain small quantities of copper from scrap.

[5]Copper recovered from copper-base scrap and converted to refined metal, alloys, and other forms. Does not include copper recovered from scrap other than copper-base.

[6]Electrolytically refined and fire-refined copper.

[7]Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

[8]Primary refined copper production plus copper recovered from old scrap (of copper-base and non-copper-base) plus refined imports for consumption minus refined exports, including adjustments for changes in refined stocks. Old scrap consists of copper items used by consumers.

[9]Stocks of refined copper at brass mills, exchanges, refineries, wire-rod mills, and other manufacturers.

[10]Source: S&P Global Platts Metals Week. Sum of the monthly average Commodity Exchange Inc. (COMEX) price and New York dealers cathode premium; reflects the delivered spot price of copper cathode to U.S. consumers by U.S. producers.

[11]Source: U.S. Census Bureau. See tables 13 and 14 for listings of the relevant Harmonized Tariff Schedule (imports) and Schedule B (exports) codes.

TABLE 2
MINE PRODUCTION OF COPPER IN THE UNITED STATES[1]

(Metric tons)

Period	Recoverable copper[2]			Contained copper		
	Arizona	Others[3]	Total	Electrowon	Concentrates[4]	Total
2021:[p]						
January–September	646,000	265,000	911,000	419,000	511,000	930,000
September	75,300	32,300	108,000	48,900	60,900	110,000
October	73,600	33,400	107,000	50,400	58,900	109,000
November	73,400	32,600	106,000	45,700	62,600	108,000
December	75,100	32,700	108,000	46,800	63,400	110,000
January–December	868,000	363,000	1,230,000	562,000	696,000	1,260,000
2022:						
January	72,200	33,500	106,000	45,400	62,800	108,000
February	65,500	32,100	97,600	40,300	59,400	99,800
March	73,100	31,700	105,000	48,500	58,400	107,000
April	72,200	30,400	103,000	44,900	59,900 [r]	105,000 [r]
May	76,400	29,800	106,000	49,000	59,400	108,000
June	73,900	28,600	103,000	46,500	58,200	105,000
July	73,100 [r]	33,600 [r]	107,000 [r]	47,600 [r]	61,400 [r]	109,000 [r]
August	69,700 [r]	32,800 [r]	102,000 [r]	46,700 [r]	58,100 [r]	105,000 [r]
September	69,600	32,300	102,000	46,800	57,100	104,000
January–September	646,000	285,000	931,000	416,000	535,000	950,000

[p]Preliminary. [r]Revised.

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

[2]Includes the recoverable copper content of concentrates (of copper and other metals), copper produced by solvent extraction and electrowinning, and copper recovered as precipitates.

[3]Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

[4]Includes the contained copper content of concentrates (of copper and other metals) and copper recovered as precipitates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN THE UNITED STATES[1, 2]

(Metric tons, copper content)

Period	Anode production[e, 3]
2021:[p]	
January–September	270,000
September	30,000
October	30,000
November	30,000
December	30,000
January–December	360,000
2022:	
January	35,000
February	35,000
March	35,000
April	30,000
May	30,000
June	30,000
July	40,000
August	40,000
September	40,000
January–September	315,000

[e]Estimated. [p]Preliminary.

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

[2]Primary production. May contain small quantities of copper from scrap.

[3]To avoid disclosing company proprietary data, monthly smelter production data are estimated based on information in annual and quarterly public company reports and do not reflect actual production reported to the U.S. Geological Survey.

TABLE 4
U.S. PRODUCTION OF REFINED COPPER[1]

(Metric tons)

Period	From primary materials			From scrap[3]	Total refined
	Electrolytic[e, 2]	Electrowon	Total primary		
2021:[p]					
January–September	270,000	419,000	689,000	37,400	726,000
September	30,000	48,900	78,900	4,590	83,500
October	30,000	50,400	80,400	3,540	83,900
November	30,000	45,700	75,700	3,990	79,700
December	30,000	46,800	76,800	4,060	80,800
January–December	360,000	562,000	922,000	48,900	971,000
2022:					
January	35,000	45,400	80,400	3,990	84,400
February	35,000	40,300	75,300	3,280	78,600
March	35,000	48,500	83,500	3,490	87,000
April	30,000	44,900	74,900	3,250	78,200
May	30,000	49,000	79,000	3,220	82,200
June	30,000	46,500	76,500	3,370	79,900
July	40,000	47,600 [r]	87,600 [r]	3,250	90,800
August	40,000	46,700 [r]	86,700 [r]	3,260	90,000
September	40,000	46,800	86,800	3,220	90,000
January–September	315,000	416,000	731,000	30,300	761,000

[e]Estimated. [p]Preliminary. [r]Revised.

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

[2]To avoid disclosing company proprietary data, monthly electrolytically refined production data are estimated based on information in annual and quarterly public company reports and do not reflect actual production reported to the U.S. Geological Survey.

[3]Electrolytically refined and fire-refined copper.

TABLE 5
COPPER RECOVERED AS REFINED COPPER AND IN ALLOYS AND OTHER FORMS FROM PURCHASED COPPER-BASE SCRAP IN THE UNITED STATES[1, 2]

(Metric tons)

Period	Refineries[3]		Ingot makers[e, 4]		Brass and wire-rod mills		Foundries, etc.[e, 4]		Total[5]
	New scrap[e]	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2021:[p]									
January–September	15,100	22,300	3,550	35,200	463,000	32,100	6,870	22,200	600,000
September	1,680	2,910	394	3,910	51,300	3,130	763	2,470	66,500
October	1,680	1,860	394	3,910	51,900	3,490	763	2,470	66,400
November	1,680	2,320	394	3,910	50,900	3,080	763	2,470	65,500
December	1,680	2,380	394	3,910	48,500	2,480	763	2,470	62,600
January–December	20,100	28,800	4,730	46,900	614,000	41,100	9,160	29,600	795,000
2022:									
January	1,680	2,310	394	3,910	51,800	4,470	763	2,470	67,800
February	1,680	1,600	394	3,910	48,100	3,530	763	2,470	62,500
March	1,680	1,810	394	3,910	50,900	3,950	763	2,470	65,900
April	1,680	1,570	394	3,910	49,900	3,750	763	2,470	64,400
May	1,680	1,540	394	3,910	49,800	3,640	763	2,470	64,100
June	1,680	1,690	394	3,910	49,800	3,710	763	2,470	64,400
July	1,680	1,570	394	3,910	50,700	3,110	763	2,470	64,600
August	1,680	1,580	394	3,910	51,400	3,330	763	2,470	65,600
September	1,680	1,540	394	3,910	50,800	3,340	763	2,470	64,900
January–September	15,100	15,200	3,550	35,200	453,000	32,800	6,870	22,200	584,000

[e]Estimated. [p]Preliminary.

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

[2]New scrap refers to material generated during the manufacturing process. Old scrap consists of copper items used by consumers.

[3]Electrolytically refined and fire refined from scrap based on source of material at smelter or refinery level.

[4]Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

[5]Does not include an estimate, based on 2020 annual data, of 2,670 tons per month from new scrap and 1,870 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6

U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES[1]

(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
2021:[p]						
January–September	668,000	1,040,000	669,000	1,040,000	28,300	18,800
September	74,000	118,000	74,300	120,000	28,300	18,800
October	74,600	115,000	74,400	110,000	28,600	23,400
November	74,500	115,000	74,300	110,000	28,800	29,200
December	74,400	86,100	74,200	95,100	29,100	20,200
January–December	892,000	1,360,000	892,000	1,360,000	29,100	20,200
2022:						
January	74,300	117,000	74,300	114,000	29,100	25,400
February	76,000	103,000	75,800	107,000	29,300	19,300
March	76,900	118,000	77,000	116,000	29,300	21,500
April	76,300	117,000	76,100	112,000	29,500	26,200
May	74,200	112,000	74,300	116,000	29,400	21,900
June	74,800	111,000	74,900	115,000	29,300	17,200
July	74,600	117,000	74,800	114,000	29,100	21,000
August	75,300	112,000	75,200	115,000	29,200	17,900
September	79,900	107,000	79,400	110,000	29,800	15,600
January–September	682,000	1,020,000	682,000	1,020,000	29,800	15,600

[p]Preliminary.

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

TABLE 7
U.S. CONSUMPTION OF REFINED COPPER[1]

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants[e, 2]	Total
2021:[p]				
January–September	311,000	989,000	46,600	1,350,000
September	34,700	112,000	5,180	152,000
October	34,700	109,000	5,180	148,000
November	34,300	110,000	5,180	150,000
December	34,700	81,800	5,180	122,000
January–December	415,000	1,290,000	62,100	1,770,000
2022:				
January	34,900	111,000	5,180	151,000
February	34,800	101,000	5,180	141,000
March	36,600	114,000	5,180	155,000
April	34,600	113,000	5,180	153,000
May	34,900	109,000	5,180	149,000
June	34,800	107,000	5,180	147,000
July	34,900	112,000	5,180	152,000
August	35,000	106,000	5,180	146,000
September	34,900	101,000	5,180	141,000
January–September	315,000	975,000	46,600	1,340,000

[e]Estimated. [p]Preliminary.

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

[2]Chemical plants, foundries, ingot makers, and miscellaneous manufacturers. These plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER[1]

(Metric tons)

Period	Primary refined copper production	Copper in old scrap[2]	Refined imports for consumption[3]	Refined exports[3]	Refined stock change during period	Apparent consumption[4]
2021:[p]						
January–September	689,000	129,000	689,000	37,800	-31,800	1,500,000
September	78,900	14,300	90,700	2,300	6,480	175,000
October	80,400	13,600	92,300	3,490	5,550	177,000
November	75,700	13,600	60,000	2,630	13,900	133,000
December	76,800	13,100	77,300	3,630	11,900	152,000
January–December	922,000	169,000	919,000	47,600	-513	1,960,000
2022:						
January	80,400	15,000	140,000	2,530	15,500	218,000
February	75,300	13,400	34,300	3,110	-1,320	121,000
March	83,500	14,000	48,700	2,590	1,350	142,000
April	74,900	13,600	64,800	2,820	794	150,000
May	79,000	13,400	74,300	2,890	-6,470	170,000
June	76,500	13,600	75,900	1,720	-2,560	167,000
July	87,600 [r]	12,900	80,900	1,900	1,560	178,000
August	86,700 [r]	13,200	36,400	3,060	-9,190	142,000 [r]
September	86,800	13,100	50,700	2,470	-1,970	150,000
January–September	731,000	122,000	606,000	23,100	-2,320	1,440,000

[p]Preliminary. [r]Revised.

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

[2]Copper recovered from old scrap (of copper-base and non-copper-base) and converted to refined metal, alloys, and other forms. Includes reported monthly production and estimates for annual reporters based on the monthly average of 2020 annual data. Old scrap consists of copper items used by consumers.

[3]Source: U.S. Census Bureau. Includes Harmonized Tariff Schedule (imports) and Schedule B (exports) codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

[4]Primary refined copper production plus copper in old scrap plus refined imports for consumption minus refined exports minus refined stock change during period.

TABLE 9

U.S. CONSUMPTION OF PURCHASED COPPER-BASE SCRAP[1, 2]

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers[e, 3]		Brass and wire-rod mills[4]		Foundries, etc.[e, 3]		Total
	New scrap[e]	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2021:[p]									
January–September	15,600	23,000	9,450	41,400	536,000	33,800	8,070	26,100	693,000
September	1,730	3,000	1,050	4,600	59,300	3,260	897	2,900	76,800
October	1,730	1,920	1,050	4,600	59,900	3,630	897	2,900	76,700
November	1,730	2,390	1,050	4,600	59,000	3,240	897	2,900	75,800
December	1,730	2,450	1,050	4,600	56,500	2,610	897	2,900	72,800
January–December	20,700	29,700	12,600	55,200	711,000	43,200	10,800	34,800	919,000
2022:									
January	1,730	2,380	1,050	4,600	59,800	4,610	897	2,900	78,000
February	1,730	1,650	1,050	4,600	56,200	3,720	897	2,900	72,800
March	1,730	1,870	1,050	4,600	59,200	4,250	897	2,900	76,500
April	1,730	1,620	1,050	4,600	58,100	3,980	897	2,900	74,800
May	1,730	1,590	1,050	4,600	57,800	3,810	897	2,900	74,400
June	1,730	1,740	1,050	4,600	57,900	3,880	897	2,900	74,700
July	1,730	1,620	1,050	4,600	58,800	3,220	897	2,900	74,800
August	1,730	1,630	1,050	4,600	59,500	3,490	897	2,900	75,800
September	1,730	1,590	1,050	4,600	58,900	3,510	897	2,900	75,100
January–September	15,600	15,700	9,450	41,400	526,000	34,500	8,070	26,100	677,000

[e]Estimated. [p]Preliminary.

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

[2]New scrap refers to material generated during the manufacturing process. Old scrap consists of copper items used by consumers.

[3]Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on the monthly average of 2020 annual data.

[4]Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
COPPER STOCKS IN THE UNITED STATES AT END OF PERIOD[1]

(Metric tons, copper content)

Period	Blister and anodes	Refined copper						
		Refineries	Wire-rod mills	Brass mills	Other[e, 2]	COMEX[3]	LME[4]	Total refined
2021:[p]								
September	10,200	5,400	13,700	8,670	6,850	51,200	125	86,000
October	15,700	6,400	17,200	8,640	6,850	52,100	325	91,500
November	15,900	5,250	16,300	9,080	6,850	53,200	14,700	105,000
December	16,100	5,440	11,500	9,500	6,850	63,800	20,200	117,000
2022:								
January	11,800	5,000	10,900	9,530	6,850	73,300	27,200	133,000
February	13,300	4,870	13,700	9,860	6,850	63,900	32,300	131,000
March	12,200	3,690	15,400	8,160	6,850	67,400	31,300	133,000
April	16,100	4,990	10,600	8,620	6,850	75,800	26,800	134,000
May	11,500	3,090	12,000	8,330	6,850	71,800	25,100	127,000
June	13,100	5,800	11,700	8,330	6,850	66,700	25,100	125,000
July	12,900	3,980	13,100	8,640	6,850	55,100	38,400	126,000
August	14,200	4,790	13,100	9,010	6,850	46,000	37,100	117,000
September	14,900	5,570	15,500	9,840	6,850	40,800	36,400	115,000

[e]Estimated. [p]Preliminary.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Chemical plants, foundries, ingot makers, and miscellaneous manufacturers. These plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2020 not yet available. Monthly data are estimated based on yearend 2020 stocks.
[3]Commodity Exchange Inc.
[4]London Metal Exchange Ltd., U.S. warehouses.

TABLE 11
AVERAGE PRICES FOR REFINED COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	COMEX first position[1]	U.S. producers cathode[2]	LME grade A cash[3]
2021:			
September	426.538	434.888	422.916
October	445.112	453.612	443.497
November	436.574	445.074	442.914
December	433.320	441.820	433.140
Year	424.306	432.264	422.496
2022:			
January	443.113	451.613	443.364
February	450.211	458.711	450.870
March	468.228	477.228	464.329
April	463.763	473.388	461.863
May	424.929	434.929	424.657
June	412.540	422.540	409.684
July	339.610	350.610	341.513
August	361.500	372.500	361.070
September	348.021	359.021	350.800
January–September	412.435	422.282	412.017

[1]Listed as "COMEX high grade first position." COMEX refers to the Commodity Exchange Inc.
[2]Sum of "COMEX high grade first position" and "NY dealer premium cathode." Reflects the delivered spot price of copper cathode to U.S. consumers by U.S. producers.
[3]LME refers to the London Metal Exchange Ltd.

Source: S&P Global Platts Metals Week.

TABLE 12
AVERAGE BUYING PRICES FOR COPPER SCRAP IN THE UNITED STATES

(Cents per pound)

Period	Brass mills no. 1 scrap	Refiners no. 2 scrap	Dealers	
			No. 2 scrap	Red brass turnings and borings
2021:				
September	409.62	368.38	319.00	229.00
October	430.88	390.64	316.50	222.00
November	423.05	383.05	330.50	222.00
December	420.45	380.45	335.00	230.00
Year	408.14	369.04	314.79	212.63
2022:				
January	433.10	393.50	336.50	235.00
February	440.32	399.84	336.50	225.00
March	459.30	423.17	341.50	217.00
April	454.35	418.85	355.00	211.50
May	414.90	379.40	327.50	196.50
June	401.81	366.31	321.50	185.00
July	329.10	295.60	259.00	172.50
August	350.65	322.65	244.00	153.00
September	335.52	307.81	254.50	148.00
January–September	402.12	367.46	308.44	193.72

Source: Fastmarkets-AMM.

TABLE 13

U.S. IMPORTS FOR CONSUMPTION OF UNMANUFACTURED COPPER[1]

(Metric tons, copper content)

Country or locality	Ore and concentrates[2]			Matte, ash, and precipitates[3]			Blister and anodes[4]			Refined[5]		
		2022			2022			2022			2022	
	2021	September	January–September	2021	September	January–September	2021	September	January–September	2021	September	January–September
Belgium	--	--	--	236	--	97	--	--	--	29	--	2
Bolivia	--	--	--	--	--	--	--	--	--	763	--	--
Brazil	--	--	--	--	--	--	--	(6)	(6)	5,720	--	(6)
Canada	11,000	1,430	10,400	651	(6)	290	(6)	(6)	(6)	141,000	9,800	84,500
Chile	--	--	--	--	--	--	--	--	--	613,000	33,200	406,000
China	--	--	--	--	--	--	--	--	(6)	654	2	889
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	22,200	--	8,910
Finland	--	--	--	--	--	--	371	31	126	35	--	39
Germany	--	(6)	(6)	155	--	94	(6)	--	(6)	2,150	381	2,450
Japan	1	--	(6)	483	--	--	1	--	(6)	1,440	88	840
Mexico	--	--	--	8	(6)	2	(6)	--	(6)	87,300	4,550	65,900
Peru	--	--	--	--	--	--	--	--	--	28,500	2,600	35,900
Russia	--	--	--	--	--	--	--	--	--	3,900	--	--
South Africa	--	--	--	--	--	--	--	--	--	277	--	--
Zambia	--	--	--	--	--	--	--	--	--	11,400	--	1,230
Other	10	--	19	49	--	56	12	1	22	155	28	153
Total	11,000	1,430	10,400	1,580	(6)	539	384	33	149	919,000	50,700	606,000

-- Zero.

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

[2]Harmonized Tariff Schedule of the United States (HTS) code 2603.00.0010. Includes copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

[3]HTS codes 2620.30.0010 and 7401.00.0000. Includes copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

[4]HTS code 7402.00.0000.

[5]HTS codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

[6]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14
U.S. EXPORTS OF UNMANUFACTURED COPPER[1]

(Metric tons, copper content)

Country or locality	Ore and concentrates[2]			Matte, ash, and precipitates[3]			Blister and anodes[4]			Refined[5]		
		2022			2022			2022			2022	
	2021	September	January–September	2021	September	January–September	2021	September	January–September	2021	September	January–September
Belgium	246	--	37	6,120	708	4,650	1,490	7	182	--	--	--
Canada	39,500	4,020	27,600	16,200	548	10,100	18,800	155	1,030	24,700	867	10,600
China	65,600	9,130	41,200	548	42	93	171	20	40	3,190	22	2,120
Dominican Republic	202	18	110	--	--	6	--	--	--	10	(6)	(6)
Finland	783	--	552	--	--	--	--	--	--	--	--	--
Germany	784	--	--	430	95	137	190	47	185	20	--	1
Hong Kong	2	--	--	44	--	(6)	310	11	22	9	--	1
India	--	--	--	30	--	--	433	194	1,090	--	13	14
Italy	--	--	--	--	--	--	113	21	133	22	2	10
Japan	6,350	--	7,610	760	9	282	17	--	20	11	1	22
Korea, Republic of	2,370	--	48	171	24	115	1,320	96	1,240	30	19	38
Malaysia	5	15	116	47	--	67	188	20	119	13	--	33
Mexico	228,000	20,300	159,000	33	--	30	258	2	240	19,100	514	7,230
Philippines	2,350	3,380	7,770	1	--	(6)	39	--	67	--	--	35
Singapore	--	--	--	300	47	155	92	--	40	22	--	19
Slovakia	--	--	--	1,450	210	1,040	--	--	--	--	--	--
Spain	--	--	--	1,130	--	916	20	--	22	(6)	11	102
Taiwan	1,490	--	--	19	--	41	291	--	137	282	1	23
Trinidad and Tobago	--	--	--	--	--	--	157	--	--	--	--	--
Other	92	1	2,800	208	67	823	499	15	464	125	1,020	2,810
Total	347,000	36,800	247,000	27,500	1,750	18,500	24,400	589	5,030	47,600	2,470	23,100

-- Zero.

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

[2]Schedule B of the United States code 2603.00.0010. Includes copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

[3]Schedule B codes 2620.30.0000, 7401.00.0010, and 7401.00.0050. Includes copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

[4]Schedule B code 7402.00.0000.

[5]Schedule B codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

[6]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP[1]

(Metric tons, gross weight)

Country or locality	Unalloyed[2]			Alloyed[3]		
		2022			2022	
	2021	September	January–September	2021	September	January–September
Bahamas	--	--	--	608	13	470
Bolivia	114	39	39	442	--	76
Canada	19,900	1,400	13,700	48,200	3,550	31,600
Cayman Islands	--	--	--	219	10	143
Colombia	174	--	118	643	--	106
Costa Rica	729	72	553	1,480	126	1,080
Dominican Republic	1,550	55	1,100	2,720	102	1,770
Ecuador	88	--	24	277	--	57
El Salvador	--	--	--	583	82	795
Germany	210	--	172	191	38	50
Guatemala	--	--	--	484	20	237
Honduras	75	2	17	907	91	590
Jamaica	7	--	7	159	40	362
Mexico	12,600	935	8,470	43,800	3,690	33,300
Panama	1,040	134	1,020	496	35	310
Peru	19	--	--	439	--	205
Suriname	254	--	250	58	--	50
Uruguay	481	--	53	58	--	25
Venezuela	--	--	--	675	--	43
Vietnam	114	--	62	64	--	50
Other	301	--	105	2,060	136	1,560
Total	37,700	2,640	25,700	105,000	7,920	72,900

-- Zero.

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

[2]Harmonized Tariff Schedule of the United States (HTS) codes 7404.00.3020 and 7404.00.6020.

[3]HTS codes 7404.00.3045, 7404.00.3055, 7404.00.3065, 7404.00.3090, 7404.00.6045, 7404.00.6055, 7404.00.6065, and 7404.00.6090.

Source: U.S. Census Bureau.

TABLE 16

U.S. EXPORTS OF COPPER SCRAP[1]

(Metric tons, gross weight)

Country or locality	Unalloyed[2]							Alloyed[3]				
		2022							2022			
		No. 1		No. 2		Other			Segregated		Unsegregated	
	2021	September	January–September	September	January–September	September	January–September	2021	September	January–September	September	January–September
Austria	1,250	20	20	117	956	--	--	193	19	618	133	165
Belgium	20,700	857	11,400	1,060	8,780	677	5,210	8,520	60	1,020	550	5,890
Canada	61,000	--	--	--	--	4,370	46,300	53,900	--	--	3,370	35,300
Chile	2,380	--	21	--	--	--	--	345	--	--	--	--
China	195,000	5,730	61,100	3,200	38,400	9,650	97,000	43,300	1,310	16,000	748	6,700
Germany	19,100	1,360	8,510	141	1,100	445	2,040	15,300	138	1,550	1,330	11,200
Greece	15,000	430	5,020	--	230	380	2,990	2,140	57	262	142	1,510
Hong Kong	23,100	97	1,000	342	7,790	384	4,870	7,570	--	238	22	3,000
India	12,800	598	6,510	378	2,250	457	6,510	39,600	3,070	20,400	4,860	29,200
Japan	19,900	329	2,410	1,120	14,300	784	2,700	7,490	162	1,160	495	4,230
Korea, Republic of	47,200	1,460	13,600	960	10,200	767	9,030	17,100	271	3,700	414	5,950
Malaysia	63,900	849	4,090	410	2,750	777	12,200	88,200	477	7,630	2,040	23,300
Mexico	3,590	253	2,470	--	--	--	104	4,640	44	1,140	1,370	4,340
Netherlands	2,950	597	4,500	--	296	77	776	569	--	20	90	1,330
Pakistan	476	--	1,110	58	233	39	109	24,400	240	1,270	2,140	19,700
Poland	11,300	551	2,170	175	317	1,320	8,990	2,280	--	39	251	678
Russia	1,410	--	--	--	39	--	77	766	--	--	--	38
Slovakia	1,850	123	1,240	--	--	--	--	1,760	--	1,860	--	120
Spain	2,960	142	2,010	57	201	41	1,160	7,070	100	1,790	521	3,760
Sweden	1,080	--	--	--	--	49	418	2,480	--	--	232	1,630
Taiwan	13,800	142	2,650	126	2,480	293	6,070	6,310	79	1,050	577	2,300
Thailand	9,750	108	2,590	40	474	1,130	14,600	35,900	332	2,230	3,160	28,500
United Arab Emirates	1,770	23	654	--	23	--	58	3,320	113	113	17	4,010
Other	6,440	1,250	2,990	22	371	160	706	5,020	117	581	612	4,220
Total	539,000	14,900	136,000	8,210	91,200	21,800	222,000	378,000	6,590	62,700	23,100	197,000

-- Zero.

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

[2]Schedule B of the United States codes 7404.00.0010 and 7404.00.0015 (no. 1), 7404.00.0025 (no. 2), and 7404.00.0030 (other).

[3]Schedule B codes for segregated alloyed copper scrap are 7404.00.0041, 7404.00.0046, 7404.00.0051, 7404.00.0056, 7404.00.0061, 7404.00.0066, and 7404.00.0075. Schedule B codes for unsegregated alloyed copper scrap are 7404.00.0085 and 7404.00.0095.

Source: U.S. Census Bureau.