

Mineral Industry Surveys

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ZINC IN FEBRUARY 2023

Domestic mine production (recoverable) of zinc in February 2023 was 54,100 metric tons (t) (tables 1, 2). Average daily (recoverable) mine production in February was 1,930 t, 10% less than the amount in the previous month and in February 2022 (fig. 1, table 2).

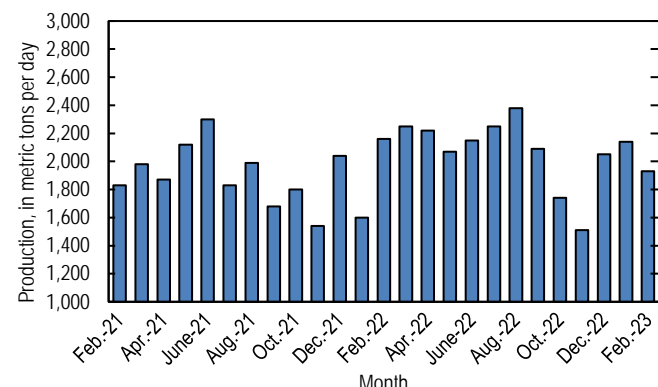


Figure 1. Average daily domestic zinc mine production (recoverable) from February 2021 through February 2023.

Stocks and Prices

There were no London Metal Exchange Ltd. (LME) stocks of Special High Grade (SHG) zinc held in U.S. warehouses at the end of February 2023, unchanged from the end of January 2023 and down from 28,325 t at the end of February 2022. Global LME stocks were 33,225 t at the end of February 2023, about double compared with stocks at the end of January 2023 but 77% less than 143,900 t at the end of February 2022 (fig. 2, table 9). Reported off-warrant stocks of SHG zinc in LME-approved warehouses at the end of February 2023 decreased to 18,522 t from 43,074 t at the end of January 2023; all of which were held in Asia (London Metal Exchange Ltd., 2023).

The monthly average S&P Global Platts Metals Week North American SHG zinc price in February 2023 was 180 cents per pound, 4% less than that in the previous month and in February 2022. The February 2023 average LME cash price for SHG zinc was \$3,143.04 per metric ton (143 cents per pound), 4% less than that in the previous month and 14% less than that in February 2022 (fig. 3, table 8).

The North American premium to the LME cash price in February 2023 averaged 37 cents per pound, unchanged from that in the previous month and 66% more than that in February 2022 (fig. 3, table 8).

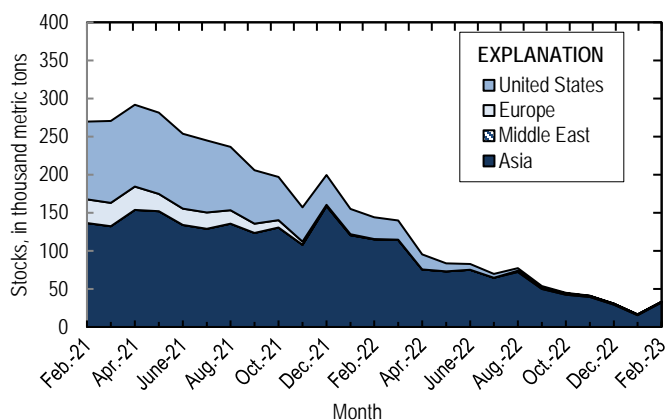


Figure 2. Global LME stocks of Special High Grade zinc, end of month, from February 2021 through February 2023. Source: London Metal Exchange Ltd.

Reference Cited

London Metal Exchange Ltd., 2023, Off-warrant stock reporting: London, United Kingdom, London Metal Exchange Ltd. (Accessed April 19, 2023, via <https://www.lme.com/en/Market-data/Reports-and-data/Warehouse-and-stocks-reports/Off-warrant-stock-reporting>.)

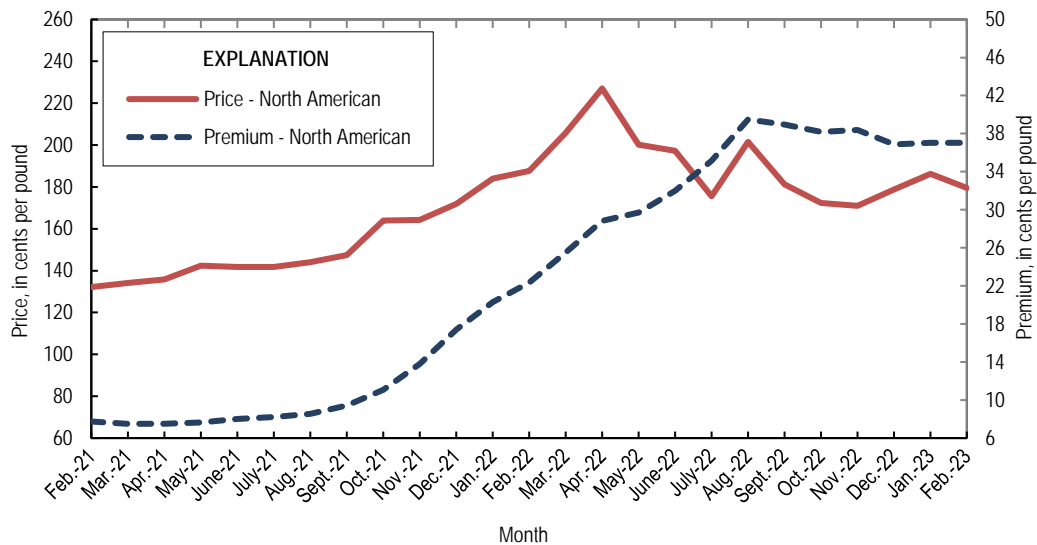


Figure 3. Average monthly North American price and premium for Special High Grade zinc from February 2021 through February 2023. The North American price is based on the London Metal Exchange cash price plus the North American premium. Source: S&P Global Platts Metals Week.

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TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

	2022	2023		
	January– December ^p	January	February	January– February ²
Production:				
Mine, zinc content of concentrate ³	761,000	67,700	55,300	123,000
Mine, recoverable zinc ³	744,000	66,200	54,100	120,000
Smelter, refined zinc ^{e, 4}	220,000	18,000	18,000	36,000
Consumption of refined zinc, apparent ⁵	973,000	117,000	92,500	210,000
Imports for consumption:				
Ore and concentrate (zinc content)	4,870	9,950	306	10,300
Refined zinc	762,000	99,500	74,900	174,000
Exports:				
Ore and concentrate (zinc content)	644,000	6,040	4,790	10,800
Refined zinc	8,630	298	403	701
Price: ⁶				
London Metal Exchange cash, average, dollars per metric ton	3,484.42	3,288.55	3,143.04	3,215.79
North American, ⁷ average, cents per pound	190.19	186.20	179.60	182.90

^eEstimated. ^pPreliminary.

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

²May include revisions to previously published data.

³Reported zinc content in both zinc and lead concentrates.

⁴Monthly and annual smelter production data are estimated to avoid disclosing company proprietary data and do not reflect actual production reported to the U.S. Geological Survey.

⁵Smelter production plus imports for consumption minus domestic exports. Apparent consumption may not reflect actual consumption owing to significant changes in unreported stocks.

⁶Special High Grade Zinc.

⁷S&P Global Platts Metals Week.

TABLE 2
MINE AND SMELTER PRODUCTION OF ZINC
IN THE UNITED STATES¹

(Metric tons)

Period	Mine ²		Smelter ^{e, 3}
	Zinc content	Recoverable	
2022:			
February	61,700	60,400	18,000
March	71,200	69,700	18,000
April	68,200	66,700	18,000
May	65,500	64,100	18,000
June	65,900	64,400	18,000
July	71,500	69,900	18,000
August	75,400	73,800	18,000
September	64,100	62,700	18,000
October	55,300	54,000	18,000
November	46,400	45,400	18,000
December	64,900	63,500	18,000
January–December	761,000	744,000	220,000
2023:			
January	67,700	66,200	18,000
February	55,300	54,100	18,000
January–February	123,000	120,000	36,000

^eEstimated.

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

²Includes the zinc content in both lead and zinc concentrates.

³Monthly and annual smelter production data are estimated to avoid disclosing company proprietary data and do not reflect actual production reported to the U.S. Geological

TABLE 3
U.S. SHIPMENTS OF
GALVANIZED STEEL SHEET AND STRIP¹

Period	Quantity (metric tons)
2022:	
February	1,320,000
March	1,460,000
April	1,460,000
May	1,440,000
June	1,360,000
July	1,320,000
August	1,370,000
September	1,310,000
October	1,350,000
November	1,320,000
December	1,250,000
January–February	2,710,000
January–December	16,300,000
2023:	
January	1,290,000
February	1,280,000
January–February	2,560,000

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

Source: American Iron and Steel Institute.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

(Gross weight, unless otherwise specified)

Material	2022		2023			
	Quantity (metric tons)	Value (thousands)	February		January–February ²	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Ore and concentrate (zinc content)	4,870	\$9,880	306	\$230	10,300	\$11,200
Unwrought:						
Refined zinc	762,000	2,720,000	74,900	269,000	174,000	600,000
Zinc alloys	3,770	15,200	285	1,140	674	2,880
Wrought:						
Bars, rods, profiles, wire	3,520	16,300	225	1,010	547	2,350
Plates, sheets, strip, foil	1,680	9,840	61	353	157	931
Ash and residues: ³						
Hard zinc spelter	--	--	--	--	--	--
Zinc dross and skimmings	4,370	8,550	365	952	1,340	3,410
Other (zinc content)	5,610	12,000	901	523	964	559
Other:						
Powders, flakes, dust	19,800	92,600	1,390	6,290	2,990	13,700
Waste and scrap	10,900	23,300	999	2,010	1,710	3,610
Chemicals:						
Lithopone	1,110	4,520	--	--	26	51
Zinc chloride	453	2,990	70	356	137	675
Zinc oxide	104,000	373,000	8,220	28,400	17,100	58,100
Zinc sulfate	95,100	123,000	7,410	6,590	11,900	11,100
Zinc sulfide	1,930	9,710	98	616	379	1,490

-- Zero.

¹Data are rounded to no more than three significant digits.

²May include revisions to previously published data.

³Other than from the manufacture of iron and steel; containing mainly zinc.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY OR LOCALITY¹

(Metric tons, gross weight, unless otherwise specified)

Material and country or locality	General imports			Imports for consumption		
	2022	2023		2022	2023	
		February	January–February ²		February	January–February ²
Ore and concentrate (zinc content):						
Canada	1,610	--	--	1,610	--	--
China	358	--	--	358	--	--
El Salvador	--	--	8	--	--	8
Korea, Republic of	--	306	306	--	306	306
Peru	2,670	--	--	2,670	--	--
Turkey	--	--	9,950	--	--	9,950
Other	231	--	--	231	--	--
Total	4,870	306	10,300	4,870	306	10,300
Refined zinc:						
Australia	69,000	16,300	27,300	74,000	16,300	27,300
Belgium	--	--	--	1,800	--	--
Brazil	--	2,800	5,300	10	2,800	5,300
Bulgaria	--	--	43	--	--	43
Canada	378,000	24,700	48,900	378,000	24,700	48,900
China	(3)	--	1,270	502	--	1,270
Denmark	(3)	--	--	(3)	--	--
Germany	983	--	--	983	--	--
India	--	249	2,020	--	249	2,020
Italy	3	--	1	3	--	1
Japan	2	95	1,090	2	95	1,090
Kazakhstan	17,700	--	9,570	17,700	--	9,570
Korea, Republic of	88,600	12,800	41,000	94,000	12,800	41,000
Mexico	108,000	8,690	18,900	108,000	8,690	18,900
Netherlands	--	--	--	1,240	--	--
Nigeria	320	--	--	320	--	--
Peru	52,900	9,180	18,900	52,900	9,180	18,900
Poland	241	--	--	241	--	--
Singapore	21	--	25	21	--	25
Spain	5,500	--	--	31,600	--	--
Taiwan	21	--	--	21	--	--
Thailand	(3)	--	--	(3)	--	--
United Kingdom	20	--	--	20	--	--
Total	722,000	74,900	174,000	762,000	74,900	174,000
Oxide:						
Australia	197	39	126	148	39	151
Canada	44,200	3,080	6,210	44,200	3,080	6,210
China	820	21	21	820	21	21
Germany	1,870	2	195	1,870	2	195
Greece	375	52	52	375	52	52
Japan	1,250	62	132	1,250	62	132
Korea, Republic of	428	3	39	428	3	39
Mexico	41,300	4,320	9,230	41,300	4,320	9,230
Netherlands	6,900	315	388	6,900	315	388
Peru	5,830	322	625	5,830	322	625
Other	494	6	9	494	6	9
Total	104,000	8,220	17,000	104,000	8,220	17,100

-- Zero.

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

²May include revisions to previously published data.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF ZINC¹

(Gross weight, unless otherwise specified)

Material	2022		2023			
	Quantity (metric tons)	Value (thousands)	February		January–February ²	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Ore and concentrate (zinc content)	644,000	\$1,540,000	4,790	\$7,410	10,800	\$15,800
Unwrought:						
Refined zinc	8,630	27,000	403	1,610	701	2,670
Zinc alloys	44,300	124,000	3,070	8,890	6,440	18,500
Wrought:						
Bars, rods, profiles, wire	3,220	21,200	123	710	604	2,510
Plates, sheets, strip, foil	5,840	24,900	256	1,080	706	2,780
Ash and residues: ³						
Hard zinc spelter	12,300	29,100	802	1,520	1,750	3,610
Other (zinc content)	26,900	52,900	1,560	2,540	2,800	4,770
Other:						
Powders, flakes, dust	10,600	51,600	652	3,440	1,250	6,160
Waste and scrap	190,000	183,000	4,030	4,880	8,770	10,800
Chemicals:						
Lithopone	510	1,900	8	35	74	195
Zinc chloride	1,250	1,550	88	323	261	515
Zinc oxide	71,400	137,000	5,690	10,600	14,400	24,000
Zinc sulfate	805	764	27	27	52	43
Zinc sulfide	2,400	14,500	75	1,170	418	2,570

¹Data are rounded to no more than three significant digits.

²May include revisions to previously published data.

³Other than from the manufacture of iron and steel; containing mainly zinc.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY OR LOCALITY¹

(Metric tons, gross weight, unless otherwise specified)

Material and country or locality	2022	2023	
		February	January–February ²
Ore and concentrate (zinc content):			
Australia	19,300	--	--
Belgium	45,200	--	--
Canada	241,000	4,650	10,700
China	49,400	--	--
Finland	23,300	--	--
Japan	63,400	69	69
Korea, Republic of	119,000	58	58
Netherlands	3,080	--	--
Spain	79,500	--	--
Other	43	5	5
Total	644,000	4,790	10,800
Refined zinc:			
Belgium	760	--	--
Canada	1,440	124	178
Italy	3,050	--	(3)
Mexico	2,840	278	518
Spain	250	--	--
Other	293	1	5
Total	8,630	403	701
Oxide:			
Australia	187	26	26
Belgium	431	38	40
Brazil	285	60	68
Canada	3,710	133	247
Colombia	275	10	10
Finland	797	201	201
India	828	209	215
Italy	108	--	173
Mexico	63,500	4,880	13,100
Poland	147	30	40
Other	1,110	100	267
Total	71,400	5,690	14,400

-- Zero.

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

²May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 8
AVERAGE PRICES FOR SPECIAL HIGH GRADE ZINC

Period	North American		London Metal Exchange	
	Premium	Price ¹	cash ²	
	¢/lb.	¢/lb.	¢/lb.	\$/t
2022:				
February	22.3	187.60	165.27	3,643.68
March	25.5	205.75	180.24	3,973.62
April	28.8	227.06	198.24	4,370.41
May	29.7	200.19	170.50	3,758.77
June	32.0	197.24	165.26	3,643.29
July	35.2	175.63	140.46	3,096.58
August	39.5	201.52	162.03	3,572.13
September	39.0	181.18	142.23	3,135.72
October	38.2	172.40	134.22	2,959.05
November	38.4	170.98	132.58	2,922.97
December	36.9	178.75	141.86	3,127.50
January–December	32.1	190.19	158.05	3,484.42
2023:				
January	37.0	186.20	149.17	3,288.55
February	37.0	179.60	142.57	3,143.04
January–February	37.0	182.90	145.87	3,215.80

¹ S&P Global Platts Metals Week North American price. Based on the London Metal Exchange cash price plus the North American premium.

² Average of the cash buyer price and the cash seller and settlement price.

Source: S&P Global Platts Metals Week.

TABLE 9
LONDON METAL EXCHANGE (LME) STOCKS OF SPECIAL HIGH GRADE ZINC, END OF PERIOD

(Metric tons)

Period	United States			Asia	Europe	Middle East	Total LME
	Baltimore, MD	New Orleans, LA	Total				
2022:							
February	4,825	23,500	28,325	115,050	525	--	143,900
March	4,425	20,925	25,350	114,100	500	--	139,950
April	3,700	15,900	19,600	75,375	375	--	95,350
May	1,800	8,875	10,675	72,875	25	--	83,575
June	1,650	6,075	7,725	75,050	25	--	82,800
July	1,300	3,950	5,250	64,450	25	--	69,725
August	1,000	2,150	3,150	72,025	25	1,950	77,150
September	975	750	1,725	49,925	25	1,950	53,625
October	650	--	650	42,450	25	1,700	44,825
November	350	--	350	39,550	25	1,300	41,225
December	25	--	25	29,425	25	1,000	30,475
2023:							
January	--	--	--	15,475	--	1,000	16,475
February	--	--	--	32,225	--	1,000	33,225
-- Zero.							

-- Zero.

Source: London Metal Exchange, Ltd.