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ZINC IN MARCH 2001

Domestic mine production in March, expressed in zinc content of ore, was estimated by the U.S. Geological Survey to be 63,200 metric tons; mine production data were not available at the time of publication. Smelter production in March, at 30,600 tons, was about 2% lower than the previous month's production and was nearly 9% below production in March 2000. Apparent consumption in March, at 102,000 tons, was nearly 4% lower than consumption in February and about 17% lower than consumption in March of last year.

The Platts Metals Week composite price for North American Special High Grade (SHG) zinc in March declined by nearly 2%, to 49.52 cents per pound of zinc metal; the price was about 10% lower than it was in March 2000.

Disruptions in zinc production announced in March helped the London Metal Exchange (LME) 3-month zinc price to bounce back above the $1,000-per-ton mark. The first disruption was rendered by Big River Zinc Corp., when workers at its 90,000-ton-per-year refinery in Sauget, IL, went on strike on March 27. On the following day, Cominco Ltd. announced that it would further reduce zinc production at its Trail refinery, B.C., Canada, by 25% during the second quarter in order to sell electric power that it generates. However, the price increase was short-lived and after a few days the LME price dropped nearly to where it was before. The strike by 275 hourly employees at Big River refinery apparently did not make much difference because traders believed that, due to historically good labor relations, the strike would not last very long. During the strike, the plant was operating at 25% of capacity using replacement workers and management. Consequently, Big River had to use accumulated inventory to satisfy its zinc metal customers' needs. The 3-year labor agreement between Big River and the Paper, Allied-Industrial, Chemical & Energy Workers International Union, which originally expired on February 27, was twice extended. Unresolved issues were wages, health care costs, and attendance rules. A Federal mediator took part in negotiations but was allowed to make only non-binding recommendations to the negotiators (Platts Metals Week, 2001b). Despite 33% less production of zinc metal, Cominco's first quarter report showed a $97 million pre-tax improvement in operating profit, due mainly to an increase in its electric power sales. First quarter sales reached 192,000 megawatt-hours compared with a total of 99,000 megawatt-hours in 2000. Combined with the high average electricity price in the first quarter ($446 per megawatt-hour versus $25 in the first quarter of 2000), the sale of surplus power generated an additional $127 million of revenue. Cominco intends to reduce Trail's production by 25% in the second quarter of 2001 and stop production entirely from early July through the end of September. These curtailments will not result in layoffs because employees will use their vacation time or will be redeployed to maintenance and project work. All commitments to zinc metal customers were expected to be met with zinc purchased from other suppliers (Cominco Ltd., 2001).

Atna Resources Ltd. of Canada is embarking on a drilling program at its 100%-owned Lone Pine property in Arizona. The initial 4 holes, totaling about 600 meters, will target the down-dip extension of high grade polymetallic mineralization at the original underground Lone Pine Mine. This drilling will follow the encouraging results from Atna's initial work, which included underground chip sampling and a transient electromagnetic geophysical survey. The Lone Pine Mine operated intermittently from the early 1900's to the 1950's. The deposit was mined to a depth of 60 meters. Historic records indicate ore grades of 6% Cu, 5% Zn, 1.5% Pb, and small amounts of gold and silver. The geologic setting, rock alteration, and mineralization are typical of volcanogenic massive sulfide deposits rich in precious metals such as at the nearby Iron King and Jerome mines (Atna Resources Ltd., 2001).

The Akita smelter in Japan, jointly owned by four Japanese companies, (Dowa Mining Co., 57%; Nippon Mining & Metals Co. Ltd., 24%; Sumitomo Metal Mining Co. Ltd., 14%; and Mitsubishi Materials, 5%) received the first commercial shipment of zinc concentrates from Mexico's Rey de Plata lead-zinc mine. Minera Rey de Plata, S.A. de C.V., owner of the mine, is jointly owned by Industrias Peñoles S.A. de C.V., 51%;

Dowa Mining Co., 39%; and Sumitomo Metal Mining Co. Ltd., 10%. Development work at the mine began in 1997. Total concentrate production this year at Rey de Plata is expected to be between 45,000 tons and 50,000 tons, all of which will be shipped to Japan. Capacity at the Akita smelter is 196,000 tons per year, but last September the company announced plans to increase it to 200,000 tons per year in 2001 (Metal Bulletin, 2001a).

Denver-based Solitario Resources Corp. announced that Cominco Ltd. and Pasminco Ltd. have terminated their option to acquire a 65% interest in Solitario's Bongará zinc-lead property in northern Peru. Both companies already have invested a total of $17 million for exploration of the property during the past 4 years. Cominco alone completed about 10,000 meters of drilling last year, mainly targeting the Florida Canyon area, where a total of 24,700 meters of drilling already was completed. This zone of mineralization covers an area of 2.5 kilometers by 1.3 kilometers. Solitario will evaluate the data over the next several months and eventually may decide to seek a new joint-venture partner or seek a loan for development (American Metal Market, 2001).

Canada's EuroZinc Mining Corp. has upgraded the planned output at its Aljustrel zinc project in southern Portugal to 1.8 million tons per year of ore following a new feasibility study of the proposed mine. The higher production of ore, together with a new backfill quarry, will cut estimated production costs to 39 cents per pound from the 42 cents per pound previously estimated (Bob Carmichael, EuroZinc Mining Corp., oral commun., May 22, 2001). The study also increased minable reserves at the Moinho deposit to 2.2 million tons. The Aljustrel Mine is expected to produce about 80,000 tons per year of zinc over a mine life of 10 years. Production at Aljustrel is expected to start in late 2001 (Platts Metals Week, 2001a).

A capacity expansion project at the Spanish zinc producer Asturiana de Zinc S.A.'s San Juan de Nieva smelter will be completed during the summer of 2001, about 3 months ahead of schedule. The expansion will increase nameplate capacity of the smelter to 440,000 tons per year from 320,000 tons per year. Based on actual production of 340,700 tons in 2000, the company could surpass the new theoretical expansion capacity and produce up to 460,000 tons per year (Metal Bulletin, 2001b). The Board of Directors of Asturiana also has recommended to its shareholders the takeover bid from the Swiss-based resources group Xstrata AG. The bid has already been approved by the Spanish Government. Glencore International AG is a 39.5% shareholder in Xstrata and also holds a 44.4% share in Asturiana (Metal Bulletin, 2001c).

Korea Zinc Co. Ltd. expects to complete the expansion of its zinc refinery in Sukpoo by September 2001. The 80,000-ton expansion that started last year will raise capacity to 190,000 tons per year. Production at Korea Zinc's other plant in Onsan also is expected to increase by yearend 2001 to 400,000 tons per year from a current annual capacity of 350,000 tons. The increases are responses to stable demand in domestic markets and increasing demand in foreign markets. To meet the growing demand in Asia, Korea Zinc has contemplated expansion of its Townsville refinery in Queensland, Australia, but no decision has been made (Platts Metals Week, 2001c). Sun Metals Corp., subsidiary of Korea Zinc, has reported that its Townsville zinc refinery is currently operating at a rate of 200,000 tons per year, or about 18% above capacity. Opened in 1999, the plant has a nominal capacity of 170,000 tons per year (Mining Journal, 2001).

Update

On April 30, the Boards of Directors of Teck Corporation and Cominco Ltd. announced that the two companies agreed to merge. The new company will be named Teck Cominco Limited, preserving the two most historic names in Canadian mining, with over 180 years of mining experience between them. The merger is subject to approval of a two-thirds majority of holders of Cominco common shares and the approval of the British Columbia Supreme Court. The new company will be a leader in the zinc business, with interests in two of the three largest zinc properties in the world as well as major refining operations; these will be balanced by significant operating assets in copper, gold, and coal. The merged company's expansion and development projects are expected to fuel further growth. The most consequential projects are: the current expansion of capacity at the Red Dog Mine; the nearly completed Antamina copper and zinc mine in Peru; the planned expansion of the Cajamarquilla zinc refinery also in Peru; and the Pogo gold and San Nicolas copper and zinc projects in Alaska and Mexico, respectively, currently at the feasibility study stage (Cominco News, 2001).

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TABLE 1
SALIENT ZINC STATISTICS 1/

(Metric tons, unless otherwise specified)

	2000	2001			
	January-December p/	January	February	March	January-March
Production:					
Mine, zinc content of concentrate	828,000	71,400 r/	63,200	63,200 e/	198,000
Mine, recoverable zinc	784,000	68,400 r/	60,500	60,500 e/	189,000
Smelter, refined zinc	363,000	31,400 r/	31,300	30,600	93,400
Oxide (gross weight)	107,000	9,410	9,800	10,300	29,500
Consumption:					
Refined zinc, reported	536,000	45,400 r/	43,500 r/	44,100	133,000
Ores e/ (zinc content)	996	82	82	82	246
Zinc-base scrap e/ (zinc content)	202,000	15,900	15,900	15,900	47,700
Copper-base scrap e/ (zinc content)	205,000	17,200	17,200	17,200	51,700
Aluminum- and magnesium-base scrap e/ (zinc content)	5,840	679	679	679	2,040
Total e/	950,000	79,300 r/	77,400 r/	78,000	235,000
Apparent consumption, metal 2/	1,320,000	90,400 r/	106,000 r/	102,000 3/	298,000
Stocks of refined (slab) zinc, end of period:					
Producer 4/	XX	9,900 r/	11,000 r/	11,500	XX
Consumer 5/	XX	62,500 r/	64,100 r/	62,900	XX
Merchant	XX	11,800	11,100	10,000	XX
Total	XX	84,200 r/	86,300 r/	84,400	XX
Shipments of zinc metal from Government stockpile	38,800	1,790	2,080	1,800	5,670
Imports for consumption:					
Refined (slab) zinc	915,000	74,500	67,500	NA	142,000 6/
Oxide (gross weight)	71,000	6,860	5,930	NA	12,800 6/
Ore and concentrate (zinc content)	52,800	200	5,340	NA	5,540 6/
Exports:					
Refined (slab) zinc	2,770	228	56	NA	284 6/
Oxide (gross weight)	7,080	848	742	NA	1,590 6/
Ore and concentrate (zinc content)	523,000	6,280	977	NA	7,250 6/
Waste and scrap (gross weight)	36,100	3,430	3,340	NA	6,770 6/
Price:					
London Metal Exchange, average, dollars per metric ton	$1,127.73	$1,033.06	$1,020.51	$1,004.41	$1,019.33
Platts Metals Week North American Special High Grade, average, cents per pound	55.61	51.28	50.39	49.52	50.40

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. XX Not applicable.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.
3/ Data based on reported consumption, stocks and estimated trade data.
4/ Data from U.S. Geological Survey and American Bureau of Metal Statistics.
5/ Includes an estimate for companies that report annually.
6/ Includes data through February only.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES 1/

(Metric tons)

Month	Beginning stocks 2/	Production	Shipments	Ending stocks 2/
2000:				
March	9,590	33,500	33,600	9,460
April	9,460	32,800	33,300	8,990
May	8,990	31,500	31,300	9,180
June	9,180	31,200	32,100	8,330
July	8,330	29,500	29,000	8,820
August	8,820	28,300	29,200	7,860
September	7,860	27,500	27,900	7,470
October	7,470	28,500	28,100	7,900
November	7,900	28,500	28,500	7,890
December	7,890	28,500	28,500	7,890
Year	XX	363,000	365,000	XX
2001:				
January	7,890	31,400 r/	29,400 r/	9,900 r/
February	9,900 r/	31,300	30,200 r/	11,000 r/
March	11,000	30,600	30,200	11,500
January - March	XX	93,400	89,800	XX

r/ Revised. XX Not applicable.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Includes stocks held at locations other than smelters.

Sources: U.S. Geological Survey and American Bureau of Metal Statistics.

TABLE 3
ZINC OXIDE PRODUCED IN THE UNITED STATES 1/ 2/

(Metric tons, gross weight)

Period	Beginning stocks	Production	Shipments	Ending stocks
2000:				
March	3,960	9,870	9,870	3,960
April	3,960	10,100	9,990	4,020
May	4,020	9,320	9,580	3,770
June	3,770	9,460	9,400	3,830
July	3,830	8,740	9,000	3,570
August	3,570	8,310	8,490	3,390
September	3,390	8,310	8,310	3,390
October	3,390	8,440	8,410	3,420
November	3,420	8,320	8,320	3,420
December	3,420	8,320	8,320	3,420
Year	XX	107,000	107,000	XX
2001:				
January	3,420	9,410	9,010	3,820
February	3,820	9,800	9,330	4,300
March	4,300	10,300	9,980	4,570
January-March	XX	29,500	28,300	XX

XX Not applicable.
1/ Excludes impure zinc oxide produced from other processes.
2/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4
ESTIMATED DISTRIBUTION OF ZINC OXIDE SHIPMENTS BY INDUSTRY 1/ 2/ 3/

(Metric tons, gross weight)

Industry	2000 January-December p/	2001 January	February	March	January-March
Agriculture	1,600	122	125	337	583
Ceramics	5,400	453	462	480	1,390
Chemicals	23,300	1,970	2,050	2,210	6,230
Paints	3,790	318	324	336	977
Photocopying	2,930	248	260	283	791
Rubber	68,700	5,780	5,970	6,330	18,100
Other	1,490	123	130 r/	4	259
Total	107,000	9,010	9,330	9,980	28,300

p/ Preliminary. r/ Revised
1/ Distribution of U.S. producers only. Imports excluded because distribution by industry cannot be distinguished.
2/ May include in-house consumption.
3/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 5
APPARENT CONSUMPTION OF REFINED ZINC
ACCORDING TO INDUSTRY USE AND PRODUCT 1/

(Metric tons)

Industry and product	2000 January-December p/	2001 January r/	February r/	March 2/	January-March
Galvanizing:					
Sheet and strip	517,000	35,800	42,000	40,700	118,000
Other	190,000	11,400	14,900	14,200	40,500
Total	707,000	47,200	56,900	54,900	159,000
Brass and bronze	184,000	11,200	14,100	13,900	39,200
Zinc-base alloy	246,000	16,800	18,400	16,800	52,000
Other uses 3/	181,000	15,200	16,100	16,100	47,600
Grand total	1,320,000	90,400	106,000	102,000	298,000

p/ Preliminary. r/ Revised.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Data based on reported consumption, stocks and estimated trade data.
3/ Includes zinc used in making zinc dust, desilvering lead, powder, alloys, anodes, chemicals, castings, light metal alloys, rolled zinc, and miscellaneous uses not elsewhere specified.

TABLE 6
AVERAGE MONTHLY ZINC PRICES 1/

Period	North American ¢/lb.	LME cash ¢/lb.	LME cash $/t
2000:			
March	54.89	50.62	1,116.00
April	55.58	51.13	1,127.22
May	57.08	52.46	1,156.44
June	55.21	50.69	1,117.50
July	56.04	51.52	1,135.86
August	57.56	53.04	1,169.36
September	60.04	55.52	1,223.93
October	54.21	49.69	1,095.44
November	52.54	48.02	1,058.67
December	52.57	48.05	1,059.40
Year	55.61	51.15	1,127.73
2001:			
January	51.28	46.86	1,033.06
February	50.39	46.29	1,020.51
March	49.52	45.56	1,004.41
January-March	50.40	46.24	1,019.33

1/ Special High Grade.

Source: Platts Metals Week.

TABLE 7
U.S. EXPORTS OF ZINC 1/

Material	2000 Quantity (metric tons)	2000 Value (thousands)	2001 2/ February Quantity (metric tons)	2001 2/ February Value (thousands)	2001 2/ Year to date Quantity (metric tons)	2001 2/ Year to date Value (thousands)
Refined (slab) zinc	2,770	$3,380	56	$77	284	$323
Ore and concentrate (zinc content)	523,000	298,000	977	778	7,250	2,580
Waste and scrap (gross weight)	36,100	21,600	3,340	1,640	6,770	3,330
Powders, flakes, and dust (zinc content)	4,830	9,030	222	336	516	874
Oxide (gross weight)	7,080	12,400	742	963	1,590	3,130
Chloride (gross weight)	3,290	2,440	140	146	326	329
Sulfate (gross weight)	5,430	3,350	302	186	1,230	756
Compounds, other (gross weight)	447	1,030	9	35	32	94

1/ Data are rounded to no more than three significant digits.
2/ Data for March 2001 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ZINC 1/

Material	2000 Quantity (metric tons)	2000 Value (thousands)	2001 2/ February Quantity (metric tons)	2001 2/ February Value (thousands)	2001 2/ Year to date Quantity (metric tons)	2001 2/ Year to date Value (thousands)
Refined (slab) zinc	915,000	$1,100,000	67,500	$72,700	142,000	$154,000
Ore and concentrate (zinc content)	52,800	26,900	5,340	2,650	5,540	2,710
Waste and scrap (gross weight)	36,500	16,200	3,640	1,070	7,490	1,930
Powders, flakes, and dust (zinc content)	23,000	45,700	1,440	2,620	3,280	5,940
Oxide (gross weight)	71,000	74,200	5,930	6,090	12,800	13,000
Chloride (gross weight)	1,110	1,240	140	150	219	217
Sulfate (gross weight)	13,700	6,800	1,700	380	2,720	912
Compounds, other (gross weight)	1,670	1,710	158	252	217	354

1/ Data are rounded to no more than three significant digits.
2/ Data for March 2001 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 9
SHIPMENTS OF ZINC METAL FROM THE NATIONAL DEFENSE STOCKPILE 1/

(Metric tons)

Period	Beginning inventory	Shipments	Ending inventory
2000:			
March	170,000	2,330	168,000
April	168,000	4,280	164,000
May	164,000	2,390	161,000
June	161,000	4,000	157,000
July	157,000	--	157,000
August	157,000	7,070	150,000
September	150,000	5,690	144,000
October	144,000	--	144,000
November	144,000	5,400	139,000
December	139,000	995	138,000
Year	XX	38,800	XX
2001:			
January	138,000	1,790	136,000
February	136,000	2,080	134,000
March	134,000	1,800	132,000
January - March	XX	5,670	XX

XX Not applicable. -- Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Defense Logistics Agency.

TABLE 10
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY 1/

(Metric tons)

Material and country	General imports			Imports for consumption		
		2001 2/			2001 2/	
	2000	February	Year to date	2000	February	Year to date
Ore and concentrate (zinc content):						
Australia	20,200	5,150	5,150	20,200	5,150	5,150
Mexico	7,490	196	396	6,930	196	396
Peru	20,300	--	--	15,400	--	--
Netherlands	10,100	--	--	10,100	--	--
Other	379	--	--	68	--	--
Total	58,600	5,340	5,540	52,800	5,340	5,540
Blocks, pigs, or slab:						
Australia	45,900	7,010	7,010	45,900	7,010	7,010
Brazil	9,270	--	3,000	9,270	--	3,000
Canada	534,000	34,500	78,300	534,000	34,500	78,300
China	24,500	1,890	1,890	25,900	1,890	1,890
Kazakhstan	65,500	10,500	20,100	65,500	10,500	20,100
Korea, Republic of	48,100	2,000	6,000	48,100	2,000	6,000
Mexico	90,800	7,200	15,400	90,800	7,200	15,400
Peru	56,300	4,360	10,300	56,300	4,360	10,300
Russia	24,200	--	--	24,200	--	--
Other	15,100 r/	1	84	15,100 r/	1	84
Total	913,000	67,500	142,000	915,000	67,500	142,000
Dross, ashes, fume (zinc content)	15,500	796	1,520	15,500	796	1,520
Grand total	987,000	73,600	149,000	983,000	73,600	149,000
Oxide (gross weight):						
Canada	44,100	4,020	8,390	44,100	4,020	8,390
China	1,170	--	21	1,170	--	21
Germany	1,100	14	14	1,100	--	14
Japan	1,110	--	236	1,110	87	236
Mexico	19,500	1,400	3,350	19,500	1,400	3,350
Netherlands	2,430	275	311	2,430	275	311
Other	1,670 r/	225	470	1,670 r/	152	471
Total	71,000	5,930	12,800	71,000	5,930	12,800
Other (gross weight):						
Waste and scrap	36,500	3,640	7,490	36,500	3,640	7,490
Sheets	9,380	225	694	9,380	225	694
Powders, flakes, dust (zinc content)	23,000	1,440	3,280	23,000	1,440	3,280

r/ Revised. -- Zero.
1/ Data are rounded to no more than three significant digits; may not add to totals shown.
2/ Data for March 2001 were not available at time of publication.

Source: U.S. Census Bureau.