

Mineral Industry Surveys

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ZINC IN JUNE 2003

Domestic mine production in June, at 66,600 metric tons (t), was about 2% lower than in May, but was more than 3% higher than in June 2002. Smelter production, at 24,200 t, was about 8% higher than in May and more than 2% higher than a year before. Apparent consumption, at 83,000 t, was nearly 3% higher than during the previous month, but was about 8% lower than in June 2002.

The Platts Metals Week average monthly composite price for North American Special High Grade zinc increased by about 2% to 38.87 cents per pound in June.

Teck Cominco Ltd. of Canada reported second quarter net earnings of \$8.5 million, 50% higher than in the second quarter of 2002. Net earnings for the first 6 months of 2003 were about \$16 million, compared with \$7 million during the same period in 2002. The profitability of metal operations at the Trail, British Columbia, zinc plant suffered from a significantly weaker U.S. dollar. Higher electric power sales by Teck Cominco, however, partially offset lower profits from metal operations and lower treatment charges at the plant. The Red Dog Mine in Alaska produced 142,000 t of zinc in concentrate, compared with 136,000 t in the second quarter of 2002 (Platts Metals Week, 2003c).

Glencore International AG's Porto Vesme zinc smelter in Italy is still operating at 20% below capacity and there are rumors that it may close for up to 6 months beginning in September. It also has been rumored that, if the smelter closes, more than 80% of the workforce will be laid off and the wages of the remaining workers will be 80% funded by the Italian Government. What is well known, however, is that Glencore has been reviewing Porto Vesme's future in light of low zinc and lead prices, the appreciating euro, and continuing high energy prices. There is a hope that cheaper electric power will be available when Italy deregulates its market in 2004. However, the deregulation may not help to lower electric energy prices because the state will continue to own and operate all power lines. The Porto Vesme complex comprises an electrolytic zinc smelter with a capacity of 100,000 metric tons per year (t/yr), an 85,000-t/yr zinc smelting furnace, and a 100,000-t/yr lead smelter (CRU International Ltd., 2003).

After securing additional funding of \$1.7 million from Korea Zinc Co. Ltd., Kagara Zinc Ltd. decided to expedite plans to double production at its Mount Garnet project in Queensland, Australia. Sufficient reserves and resources exist at Mt. Garnet to support the expanded production rate over a 10-year mine life. Korea zinc agreed to purchase any additional zinc concentrate produced from the expansion. The Mt. Garnet project, which sources ore from a number of satellite deposits, began production in February 2003, and by mid-year it achieved a full production rate of 80,000 t/yr of zinc concentrate (Platts Metals Week, 2003b).

Since early 2002, Chinese zinc refining capacity increased by 158,000 t/yr, mostly owing to expansion rather than from greenfield projects. During the first half of 2003, China produced 1,060,000 t of zinc metal, up by about 7% compared with the same period in 2002. Production in June 2003 increased by about 23% to 204,000 t, mainly because of a capacity increase by Sichuan Hongda Group Co. to 80,000 t/yr from 30,000 t/yr. By yearend 2004, an additional 100,000-t/yr electrolytic refinery is to be finished by Yuguang Gold and Lead Co. Ltd. Some of these new additions, however, will not be fully utilized, because of the shortage of domestic concentrate and the increasing price of imported concentrates. Zinc in concentrate production during the first half of 2003 increased by about 13% compared with the same period in 2002 (Antaike, 2003).

Update

North American Zinc Corp. (a subsidiary of U.S. Zinc Corp.) is the second company that has expressed interest in purchasing Horsehead Industries Inc. The Florida-based SUN Capital Partners Inc. has also attempted to acquire Horsehead, but did not comply with bidding procedures outlined by the U.S. Bankruptcy Court for the Southern District of New York, where Horsehead filed for Chapter 11 bankruptcy protection in August 2002. The purchase, as was the case with the SUN Capital, would include all the operating assets of Horsehead Industries except the idled Balmat Mine, the sale of which was authorized to OntZinc Corp. of Canada. The assets offered for sale include Zinc Corp. of America (ZCA), Horsehead Resource

Development (HRD) Co., and ZCA Powders; all employ a total of about 1,000 people. ZCA operates the largest zinc recycling facility in the United States, the 180,000-t/yr smelter in Monaca, PA. HRD operates flue dust recycling facilities in Palmerton, PA; Rockwood, TN; Calumet, IL; and Beaumont, TX. The proposed sale agreement reportedly calls for North American Zinc to pay \$6.3 million in cash to Horsehead, \$13 million in promissory notes to Viacom Inc. (Horsehead's largest creditor), and also assume \$30.7 million in obligations to banks, other creditors, and other liabilities. The sale of Horsehead may face opposition from the United Steelworkers Union, which has objected to a clause in the agreement that would give the new owners discretion over the future employment of Horsehead workers and could result in job losses. The court has ruled that competing bids from any interested parties can be filed by August 12, 2003. Speedy sale is important for Horsehead because it loses \$1.6 million per month and may force the company to close its 155,000-t/yr Monaca zinc smelter (CRU International Ltd., 2003¹). North American Zinc is part of U.S. Zinc Corp. (a subsidiary of IMCO), a Texas company that is among North America's largest zinc recyclers (Metal-Pages, 2003b[§]).

Glencore International AG of Switzerland began formal negotiations with Peruvian zinc and lead miner Compañía Minera Volcán S.A. concerning investment or acquisition of the cash-strapped Peruvian company. Other bidders include Brazilian base metal company Companhia Paraibuna de Metais, Peruvian tin mining company Minsur S.A., and trading company BHL Resources Limited Inc. (also in Peru). In 2002, Volcán produced 337,000 t of zinc in concentrate. If Glencore acquires Volcán, it would become the world's largest zinc producer, directly or indirectly controlling about 10% of total world production (Metal-Pages, 2003a[§]).

Creditors to Western Metals Ltd. of Australia appointed two administrators to work with the Western senior managers to continue operations while seeking offers for the company, or any other solution for the troubled company. The reason for the company's financial problems has been depressed base-metal prices and the increasing value of the Australian dollar against the U.S. dollar. Western Metals owns the Pillara and Kapok zinc-lead operations in the Lennard Shelf area of Western Australia and the Mount Gordon copper mine in Queensland. The Pillara and Kapok Mines produced a total of 2.85 million

metric tons of ore in the fiscal year ending in June 30, 2003, with a head grade of 6.4% zinc and 2.7% lead. The ore was treated in the Pillara concentrator, yielding 293,000 t of zinc concentrate containing 176,000 t of zinc. During the last quarter of the fiscal year, a new secondary crushing circuit was installed at the Pillara concentrator, enabling fourth-quarter ore throughput to reach a record 741,000 t of ore. By the end of the fiscal year, a decision was reached to close the smaller Kapok Mine, which may lower the efficiency of the upgraded Pillara concentrator (Mining Journal, 2003).

Pasminco Ltd. of Australia announced that negotiations to sell its Elura zinc-lead mine and the Newcastle ship loader to Consolidated Broken Hill Co. Ltd. have reached a stage where all the major conditions have been met or waived. The sale of the New South Wales mine is now expected to be completed by mid September. Elura produced concentrate containing 85,000 t of zinc and 45,000 t of lead in 2002 (Platts Metals Week, 2003a).

Majority shareholders in the Chelyabinsk Tube-Rolling Plant have acquired controlling interest in the Chelyabinsk Electrolytic Zinc Plant from the Russian oil company Vitol. Sale of the 87% stake in the 200,000-t/yr electrolytic smelter for an undisclosed sum was concluded on July 24. The plant supplies nearly 90% of domestic consumption and exports about 15% of its output (Metal Bulletin, 2003).

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¹References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

	2002	2003			
	January-December	April	May	June	January-June
Production:					
Mine, zinc content of concentrate	874,000	56,300	67,800	66,600	386,000
Mine, recoverable zinc	754,000	54,000	65,200	64,000	371,000
Smelter, refined zinc	259,000	23,000	22,400	24,200	139,000
Consumption:					
Refined zinc, reported	421,000	35,200	34,700 ^r	36,300	207,000
Ores ^e (zinc content)	727	61	61	61	363
Zinc-base scrap ^e (zinc content)	189,000	15,900	15,900	15,900	95,300
Copper-base scrap ^e (zinc content)	176,000	14,700	14,700	14,700	88,000
Aluminum-and magnesium-base scrap ^e (zinc content)	1,430	120	120	120	717
Total ^e	789,000	66,000	65,500 ^r	67,000	391,000
Apparent consumption, metal ²	1,150,000	79,500	80,600	83,000	530,000 ³
Stocks of refined (slab) zinc, end of period:					
Producer ⁴	XX	8,340	7,300	7,770	XX
Consumer ⁵	XX	56,700	55,700	55,600	XX
Merchant	XX	10,600	9,990	9,990	XX
Total	XX	75,600	72,900	73,300	XX
Shipments of zinc metal from Government stockpile	5,040	200	997	--	1,710
Imports for consumption:					
Refined (slab) zinc	874,000	54,600	59,200	NA	317,000 ⁶
Oxide (gross weight)	69,700	8,260	8,400	NA	36,800 ⁶
Ore and concentrate (zinc content)	122,000	13,300	19,700	NA	45,800 ⁶
Exports:					
Refined (slab) zinc	1,160	167	52	NA	519 ⁶
Oxide (gross weight)	10,800	1,030	848	NA	4,830 ⁶
Ore and concentrate (zinc content)	822,000	48,500	20,700	NA	116,000 ⁶
Waste and scrap (gross weight)	47,700	4,090	3,640	NA	18,000 ⁶
Price:					
London Metal Exchange, average, dollars per metric ton	\$778.38	\$754.30	\$775.33	\$790.31	\$779.39
Platts Metals Week North American Special High Grade, average, cents per pound	38.64	37.23	38.18	38.87	38.43

^eEstimated. ^rRevised. NA Not available. XX Not applicable. -- Zero.

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

²Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

³Data based on reported consumption, stocks, and estimated trade data.

⁴Data from U.S. Geological Survey and American Bureau of Metal Statistics.

⁵Includes an estimate for companies that report annually.

⁶Includes data through May only.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES¹

(Metric tons)

Month	Beginning stocks ²	Production	Shipments	Ending stocks ²
2002:				
June	7,470	23,700	24,500	6,670
July	6,670	19,100	18,900	6,830
August	6,830	16,200	16,000	7,010
September	7,010	17,900	17,400	7,470
October	7,470	16,100	16,600	7,020
November	7,020	21,800	20,800	7,970
December	7,970	23,500	22,900	8,550
Year	XX	259,000	257,000	XX
2003:				
January	8,550	24,900	21,500	11,900
February	11,900	22,800	25,800	8,930
March	8,930	21,700	24,500	6,110
April	6,110	23,000	20,700	8,340
May	8,340	22,400	23,500	7,300
June	7,300	24,200	23,700	7,770
January-June	XX	139,000	140,000	XX

XX Not applicable.

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

²Includes stocks held at locations other than smelters.

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

TABLE 3
APPARENT CONSUMPTION OF REFINED ZINC ACCORDING TO INDUSTRY USE AND PRODUCT¹

(Metric tons)

Industry and product	2002		2003		
	January-December	April	May	June ²	January-June
Galvanizing:					
Sheet and strip	477,000	34,400	34,500	34,300	224,000
Other	175,000	10,800	11,000 [†]	10,900	75,500
Total	652,000	45,200	45,500 [†]	45,200	299,000
Brass and bronze	189,000	12,800	13,100 [†]	13,900	86,100
Zinc-base alloy	233,000	17,100	17,300 [†]	17,400	113,000
Other uses ³	71,700	4,400	4,600	6,500	31,200
Grand total	1,150,000	79,500	80,600	83,000	530,000

[†]Revised

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

²Data based on reported consumption, stocks and estimated trade data.

³Includes 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 4
AVERAGE MONTHLY ZINC PRICES¹

Period	North American	LME cash	
	¢/lb.	¢/lb.	\$/t
2002:			
June	38.04	34.78	766.75
July	39.30	36.04	794.45
August	37.27	33.89	747.24
September	37.81	34.29	755.88
October	37.71	34.21	754.30
November	38.09	34.70	764.91
December	39.69	36.17	797.36
Year	38.64	35.31	778.38
2003:			
January	38.72	35.43	781.01
February	38.68	35.60	784.80
March	38.88	35.86	790.60
April	37.23	34.21	754.30
May	38.18	35.17	775.33
June	38.87	35.85	790.31
January-June	38.43	35.35	779.39

¹Special High Grade.

Source: Platts Metals Week.

TABLE 5
U.S. EXPORTS OF ZINC¹

Material	2002		2003 ²			
	Quantity (metric tons)	Value (thousands)	May		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	1,160	\$1,210	52	\$60	519	\$476
Ore and concentrate (zinc content)	822,000	322,000	20,700	4,260	116,000	31,800
Waste and scrap (gross weight)	47,700	23,000	3,640	2,070	18,000	9,610
Powders, flakes, dust (zinc content)	5,660	8,120	423	519	2,850	3,550
Oxide (gross weight)	10,800	14,600	848	832	4,830	5,990
Chloride (gross weight)	1,950	1,930	46	54	473	526
Sulfate (gross weight)	2,900	1,760	289	163	1,220	703
Compounds, other (gross weight)	217	600	14	84	43	200

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

²Data for June 2003 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

Material	2002		2003 ²			
	Quantity (metric tons)	Value (thousands)	May		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	874,000	\$716,000	59,200	\$47,700	317,000	\$259,000
Ore and concentrate (zinc content)	122,000	44,600	19,700	4,650	45,800	14,300
Waste and scrap (gross weight)	31,200	9,530	556	321	4,350	2,220
Powders, flakes, dust (zinc content)	30,900	47,800	2,950	4,540	12,200	18,400
Oxide (gross weight)	69,700	57,600	8,400	5,810	36,800	27,900
Chloride (gross weight)	716	775	109	130	290	318
Sulfate (gross weight)	20,100	10,300	2,620	1,090	12,900	5,920
Compounds, other (gross weight)	1,030	1,180	32	36	219	230

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

²Data for June 2003 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 7
SHIPMENTS OF ZINC METAL FROM THE NATIONAL DEFENSE
STOCKPILE¹

(Metric tons)

Period	Beginning inventory	Shipments	Ending inventory
2002:			
June	112,000	741	111,000
July	111,000	890	110,000
August	110,000	445	110,000
September	110,000	--	110,000
October	110,000	1,130	109,000
November	109,000	--	109,000
December	109,000	--	109,000
Year	XX	5,040	XX
2003:			
January	109,000	516	108,000
February	108,000	--	108,000
March	108,000	--	108,000
April	108,000	200	108,000
May	108,000	997	107,000
June	108,000	--	107,000
January-June	XX	1,710	XX

XX Not applicable. -- Zero.

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

Source: Defense Logistics Agency.

TABLE 8
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY^{1,2}

(Metric tons)

Material and country	General imports			Imports for consumption		
	2002	2003		2002	2003	
		May	Year to date		May	Year to date
Ore and concentrate (zinc content):						
Australia	41,800	--	--	41,800	--	--
Ireland	6,570	--	18,000	6,570	--	18,000
Mexico	12,700	--	--	12,700	--	--
Peru	61,100	19,700	27,700	61,100	19,700	27,700
Other	118	--	--	118	--	--
Total	122,000	19,700	45,800	122,000	19,700	45,800
Blocks, pigs, or slab:						
Australia	35,000	--	14,000	21,000	--	14,000
Brazil	30,200	3,510	10,900	30,200	1,350	6,730
Canada	523,000	46,200	216,000	523,000	46,200	216,000
China	39,700	2,960	21,900	1,040	--	22
Japan	10,500	--	--	--	--	--
Kazakhstan	93,200	--	5,720	93,200	--	5,720
Korea, Republic of	76,200	--	19,000	2,480	--	--
Mexico	136,000	8,350	52,400	136,000	8,350	52,400
Peru	36,000	3,580	20,000	34,300	3,350	19,700
Poland	9,340	--	1,600	9,340	--	1,600
Russia	10,700	--	--	10,700	--	--
Other	25,200	--	40	13,100	--	40
Total	1,020,000	64,600	362,000	874,000	59,200	317,000
Dross, ashes, fume (zinc content)						
	15,500	1,420	6,000	15,500	1,420	6,000
Grand total	1,160,000	85,700	414,000	1,010,000	80,400	368,000
Oxide (gross weight):						
Canada	44,800	3,850	20,200	44,800	3,850	20,200
China	838	102	302	838	102	302
Japan	869	73	425	869	73	425
Mexico	19,900	3,950	13,700	19,900	3,950	13,700
Netherlands	2,640	399	2,000	2,640	399	2,000
Other	760	22	142	760	22	142
Total	69,700	8,400	36,800	69,700	8,400	36,800
Other (gross weight):						
Waste and scrap	31,200	556	4,350	31,200	556	4,350
Sheets	1,640	171	842	1,640	171	842
Powders, flakes, dust (zinc content)	30,900	2,950	12,200	30,900	2,950	12,200

-- Zero.

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

²Data for June 2003 were not available at time of publication.

Source: U.S. Census Bureau.