

# Mineral Industry Surveys

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## ZINC IN APRIL 2006

Domestic mine production (recoverable) of zinc in April 2006 was 54,300 metric tons (t), according to the U.S. Geological Survey. This was a decrease of about 12% compared with production in March 2006 and a decrease of about 4% compared with that in April 2005. Estimated smelter production in April of 19,300 t of refined zinc was about 13% lower than that in March and about 18% lower than that in April of 2005. Apparent consumption of 83,900 t of zinc represented a decrease of about 10% when compared with that in March and 8% when compared with that in April of 2005.

The Platts Metals Week average price for North American Special High Grade Zinc for the month of April was 148.56 cents per pound, an increase of 27% from the March average price, and an increase of 136% from the April 2005 average price. The average London Metal Exchange Ltd. (LME) cash price for April increased to \$3,083.75 per metric ton of zinc, a 28% increase compared with the price in March and a 137% increase compared with the price in April 2005. During April, global LME zinc stocks dropped by 21,950 t to 258,650 t and were down by 134,900 t from yearend 2005 stocks.

HudBay Minerals, Inc. (2006) (Winnipeg, Manitoba, Canada) produced the first zinc concentrates at its Balmat Mine (St. Lawrence County, NY) in mid-May. The mine was expected to reach planned production capacity of 60,000 metric tons per year (t/yr) of zinc concentrates in 2008. The concentrates will be treated at the CEZ zinc refinery in Quebec.

The Zhuzhou Smelter Group (wholly owned by Hunan Nonferrous Metals Corp., Hunan Province, China), announced that the production of electrolytic zinc, including both zinc metal and zinc alloys, totaled 326,700 t in 2005, which was an 8.3% increase above that of 2004. The Zhuzhou smelter also produced 1,472 t of cadmium and a wide range of minor metals (Metal-Pages, 2006§<sup>1</sup>).

Vedanta Resources plc (2006) (London, United Kingdom) reported that refined zinc production from its smelters in India for its fiscal year 2006 ending March 31 was 284,000 t, an increase of 34% when compared with that of fiscal year 2005. Most of the increase came from their new 170,000 t/yr hydro smelter at Chanderiya, India, that was commissioned in May 2005. Zinc production for the quarter ending March 31 was 92,000 t, up 70% from the quarter ending in March 2005. Mine production of contained zinc in concentrates for fiscal year 2006 was 472,000 t, an increase of 33% compared with production in fiscal year 2005.

The Defense National Stockpile Center aggregated cash disposal (sale) of zinc in April, under the monthly Basic Ordering Agreement DLA-Zinc-004, was 2,812 t (approximately 3,100 short tons), with an approximate value of \$8.8 million (Defense National Stockpile Center, 2006).

### References Cited

- Defense National Stockpile Center, 2006, Stockpile announces zinc BOA sales for April 2006: Fort Belvoir, VA, Defense National Stockpile Center news release, May 5, 1 p.
- HudBay Minerals, Inc., 2006, HudBay starts production ramp-up at Balmat zinc mine: Winnipeg, Manitoba, Canada, HudBay Minerals Inc. news release, May 15, 1 p.
- Vedanta Resources plc, 2006, Production results for the fourth quarter and year ended 31 March 2006: London, United Kingdom, Vedanta Resources plc press release, April 11, 3 p.

### Internet Reference Cited

- Metal-Pages, 2006, (April 20), Zhuzhou smelter post record Zn & Cd production, accessed April 28, 2006, at URL <http://www.metal-pages.com/news.php>.

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<sup>1</sup>A reference that includes a section mark (§) is found in the Internet Reference Cited section.

TABLE 1  
SALIENT ZINC STATISTICS<sup>1</sup>

(Metric tons, unless otherwise specified)

	2005	2006			
	January- December	February	March	April	January- April
<b>Production:</b>					
Mine, zinc content of concentrate	748,000 <sup>r</sup>	53,400	63,900	56,800	235,000
Mine, recoverable zinc	720,000 <sup>r</sup>	51,400	61,500	54,300	225,000
Smelter, refined zinc <sup>2</sup>	259,000	19,000	22,100 <sup>e</sup>	19,300 <sup>e</sup>	81,700 <sup>e</sup>
<b>Consumption:</b>					
Refined zinc, reported	405,000	34,500	34,800 <sup>r</sup>	34,000	138,000
Ores <sup>e</sup> (zinc content)	727	61	61	61	242
Zinc-base scrap <sup>e</sup> (zinc content)	191,000	15,900	15,900	15,900	63,500
Copper-base scrap <sup>e</sup> (zinc content)	176,000	14,700	14,700	14,700	58,700
Aluminum-and magnesium-base scrap <sup>e</sup> (zinc content)	1,430	120	120	120	478
Total <sup>e</sup>	774,000	65,200	65,500 <sup>r</sup>	64,800	261,000
Apparent consumption, metal <sup>3</sup>	939,000	74,700	93,200 <sup>r</sup>	83,900 <sup>4</sup>	345,000
<b>Stocks of refined (slab) zinc, end of period:</b>					
Producer <sup>5</sup>	XX	5,530	6,580 <sup>e</sup>	7,150 <sup>e</sup>	XX
Consumer <sup>6</sup>	XX	56,900	49,800	50,800	XX
Merchant	XX	10,200	10,200	10,200	XX
Total	XX	72,600	66,600	68,200	XX
Shipments of zinc metal from Government stockpile	20,400	526	1,720	2,810	6,950
<b>Imports for consumption:</b>					
Refined (slab) zinc	603,000	56,000	63,900	NA	193,000 <sup>7</sup>
Oxide (gross weight)	103,000	6,910	16,900	NA	31,300 <sup>7</sup>
Ore and concentrate (zinc content)	153,000	10,300	9,540	NA	23,300 <sup>7</sup>
<b>Exports:</b>					
Refined (slab) zinc	782	35	545	NA	586 <sup>7</sup>
Oxide (gross weight)	13,700	2,040	2,790	NA	6,460 <sup>7</sup>
Ore and concentrate (zinc content)	776,000	3,680	17,200	NA	39,000 <sup>7</sup>
Waste and scrap (gross weight)	50,500	4,060	5,640	NA	13,900 <sup>7</sup>
<b>Price:</b>					
London Metal Exchange, average, dollars per metric ton	\$1,381.37	\$2,218.90	\$2,416.44	\$3,083.75	\$2,452.25
Platts Metals Week North American Special High Grade, average, cents per pound	67.14	106.84	116.80	148.56	118.29

<sup>e</sup>Estimated. <sup>r</sup>Revised. NA Not available. XX Not applicable.

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

<sup>2</sup>Includes zinc metal used to manufacture zinc oxide.

<sup>3</sup>Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

<sup>4</sup>Data based on reported consumption, stocks, and estimated trade data.

<sup>5</sup>Data from U.S. Geological Survey and American Bureau of Metal Statistics.

<sup>6</sup>Includes an estimate for companies that report annually.

<sup>7</sup>Includes data through March only.

TABLE 2  
REFINED ZINC PRODUCED IN THE UNITED STATES<sup>1,2</sup>

(Metric tons)

Month	Beginning stocks <sup>3</sup>	Production	Shipments	Ending stocks <sup>3</sup>
<b>2005:</b>				
March	4,820	24,100	23,100	5,790
April	5,790	22,000	20,900	6,810
May	6,810	21,500	22,000	6,360
June	6,360	18,100	16,400	8,070
July	8,070	20,200	20,900	7,400
August	7,400	20,500	21,000	6,960
September	6,960	19,900	22,500	4,390
October	4,390	22,600	23,000	4,010
November	4,010	24,600	24,500	4,040
December	4,040	23,700	22,200	5,590
January-December	XX	259,000	258,000	XX
<b>2006:</b>				
January	5,590	21,200 <sup>e</sup>	20,100 <sup>e</sup>	6,750
February	6,750	19,000 <sup>e</sup>	20,200 <sup>e</sup>	5,530
March	5,530	22,100 <sup>e</sup>	21,100 <sup>e</sup>	6,580
April	6,580	19,300 <sup>e</sup>	18,800 <sup>e</sup>	7,150
January-April	XX	81,700 <sup>e</sup>	80,100 <sup>e</sup>	XX

<sup>e</sup>Estimated. XX Not applicable.

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

<sup>2</sup>Includes zinc metal used to manufacture zinc oxide.

<sup>3</sup>Includes 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 PRODUCT<sup>1</sup>

(Metric tons)

Industry and product	2005	2006			January-April
	January-December <sup>2</sup>	February	March <sup>f</sup>	April <sup>2</sup>	
<b>Galvanizing:</b>					
Sheet and strip	392,000	31,700	39,100	34,700	144,000
Other	121,000	9,200	13,000	11,200	46,300
Total	513,000	40,900	52,200	45,900	190,000
Brass and bronze	147,000	11,500	14,300	13,200	53,600
Zinc-base alloy	203,000	16,100	19,800	18,100	73,600
Other uses <sup>3</sup>	76,900	6,200	6,900	6,600	26,900
Grand total	939,000	74,700	93,200	83,900	345,000

<sup>f</sup>Revised.

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

<sup>2</sup>Data based on reported consumption, stocks, and estimated trade data.

<sup>3</sup>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 4  
AVERAGE ZINC PRICES<sup>1</sup>

Period	North American	LME <sup>2</sup> cash	
	¢/lb.	¢/lb.	\$/t
2005:			
April	63.03	58.96	1,299.81
May	60.46	56.39	1,243.23
June	61.73	57.85	1,275.33
July	57.96	54.16	1,194.08
August	62.94	58.88	1,298.05
September	67.89	63.37	1,397.08
October	72.66	67.49	1,487.91
November	78.47	73.06	1,610.61
December	88.01	82.62	1,821.44
January-December	67.14	62.66	1,381.37
2006:			
January	100.96	94.80	2,089.92
February	106.84	100.65	2,218.90
March	116.80	109.61	2,416.44
April	148.56	139.88	3,083.75
January-April	118.29	111.23	2,452.25

<sup>1</sup>Special High Grade.

<sup>2</sup>London Metal Exchange.

Source: Platts Metals Week.

TABLE 5  
U.S. EXPORTS OF ZINC<sup>1</sup>

Material	2005		2006 <sup>2</sup>			
	Quantity (metric tons)	Value (thousands)	March		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	784	\$1,500	545	\$1,320	586	\$1,400
Ore and concentrate (zinc content)	786,000	477,000	17,200	8,180	39,000	19,200
Waste and scrap (gross weight)	56,000	62,000	5,640	8,290	13,900	19,200
Powders, flakes, dust (zinc content)	9,310	18,500	901	2,030	2,580	5,150
Oxide (gross weight)	14,600	23,600	2,790	4,610	6,460	9,900
Chloride (gross weight)	1,860	2,310	134	160	318	379
Sulfate (gross weight)	2,820	1,870	357	224	1,060	671
Compounds, other (gross weight)	1,130	887	5	23	55	111

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Data for April 2006 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF ZINC<sup>1</sup>

Material	2005		2006 <sup>2</sup>			
	Quantity (metric tons)	Value (thousands)	March		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	668,000	\$875,000	63,900	\$116,000	193,000	\$321,000
Ore and concentrate (zinc content)	156,000	117,000	9,540	12,100	23,300	27,600
Waste and scrap (gross weight)	9,580	8,820	1,120	1,340	3,350	3,860
Powders, flakes, dust (zinc content)	23,400	46,000	2,920	8,390	6,610	17,500
Oxide (gross weight)	109,000	127,000	16,900	21,600	31,300	44,900
Chloride (gross weight)	723	1,250	30	109	108	176
Sulfate (gross weight)	31,100	16,600	5,950	3,200	13,400	7,580
Compounds, other (gross weight)	7,010	6,370	731	481	2,720	1,810

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Data for April 2006 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 7  
SHIPMENTS OF ZINC METAL FROM THE NATIONAL  
DEFENSE STOCKPILE<sup>1</sup>

(Metric tons)

Period	Beginning inventory	Shipments	Ending inventory
2005:			
April	65,600	220	65,400
May	65,400	301	65,100
June	65,100	2,960	62,100
July	62,100	2,600	59,500
August	59,500	3,680	55,800
September	55,800	3,710	52,100
October	52,100	3,010	49,100
November	49,100	2,830	46,300
December	46,300	299	46,000
January-December	XX	20,400	XX
2006:			
January	46,000	1,890	44,100
February	44,100	526	43,600
March	43,600	1,720	41,900
April	41,900	2,810	39,000
January-April	XX	6,950	XX

XX Not applicable.

<sup>1</sup>Data 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<sup>1,2</sup>

(Metric tons)

Material and country	General imports			Imports for consumption		
	2005	2006		2005	2006	
		March	Year to date		March	Year to date
<b>Ore and concentrate (zinc content):</b>						
Australia	8,590	--	--	8,590	--	--
Ireland	13,000	--	4,260	13,000	--	4,260
Mexico	27,300	--	2,850	27,300	--	2,850
Peru	104,000	8,930	15,000	104,000	8,930	15,000
Other	2,900	610	1,180	2,900	610	1,180
<b>Total</b>	<b>156,000</b>	<b>9,540</b>	<b>23,300</b>	<b>156,000</b>	<b>9,540</b>	<b>23,300</b>
<b>Blocks, pigs, or slab:</b>						
Australia	1	--	--	24,600	3,250	13,300
Brazil	43,700	2,170	5,960	43,800	2,170	5,960
Canada	439,000	44,700	132,000	439,000	44,700	132,000
China	15	--	--	2,140	3,020	5,460
Japan	--	--	--	1,210	1,310	1,660
Kazakhstan	--	--	--	--	--	--
Korea, Republic of	5,030	--	--	8,710	6,080	15,500
Mexico	147,000	2,530	17,400	147,000	2,530	17,400
Norway	--	--	--	--	757	782
Peru	235	--	--	834	76	277
Other	1,320	--	--	1,770	--	--
<b>Total</b>	<b>636,000</b>	<b>49,400</b>	<b>156,000</b>	<b>668,000</b>	<b>63,900</b>	<b>193,000</b>
Dross, ashes, fume (zinc content)	15,800	1,760	5,670	15,800	1,760	5,670
<b>Grand total</b>	<b>807,000</b>	<b>60,700</b>	<b>184,000</b>	<b>840,000</b>	<b>75,200</b>	<b>222,000</b>
<b>Oxide (gross weight):</b>						
Canada	62,000	4,500	13,400	62,000	4,500	13,400
China	173	--	--	173	--	--
Italy	15,400	4,970	4,970	15,400	4,970	4,970
Japan	1,080	192	306	1,080	192	306
Mexico	24,100	3,030	7,920	24,100	3,030	7,920
Netherlands	4,450	345	654	4,450	345	654
Other	2,040	3,860	4,130	2,040	3,860	4,130
<b>Total</b>	<b>109,000</b>	<b>16,900</b>	<b>31,300</b>	<b>109,000</b>	<b>16,900</b>	<b>31,300</b>
<b>Other (gross weight):</b>						
Waste and scrap	9,580	1,120	3,350	9,580	1,120	3,350
Sheets	3,630	400	879	3,630	400	879
<b>Powders, flakes, dust (zinc content)</b>	<b>23,400</b>	<b>2,920</b>	<b>6,610</b>	<b>23,400</b>	<b>2,920</b>	<b>6,610</b>

-- Zero.

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

<sup>2</sup>Data for April 2006 were not available at time of publication.

Source: U.S. Census Bureau.