

Mineral Industry Surveys

For information, contact:

Jozef Plachy, Zinc Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4982, Fax: (703) 648-7757
E-mail: jplachy@usgs.gov

Samir Hakim (Data)
Telephone: (703) 648-4998
Fax: (703) 648-7975
E-mail: shakim@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

ZINC IN JANUARY 2004

Domestic mine production (zinc content of concentrate) in January 2004 was 60,400 metric tons (t), which was about 4% less than production in December 2003 and about 11% less than in January 2003, according to the U.S. Geological Survey. Smelter production in January was 26,900 t, which was about 33% more than in December and about 8% more than in January 2003. Apparent consumption was 98,900 t, which was less than 1% more than in December and 11% more than in January 2003.

The Platts Metals Week average monthly composite price for North American Special High Grade zinc increased by about 4% in January to 49.93 cents per pound, compared with that of December. The price was about 29% higher than in January 2003.

The U.S. premium increased to 4.5 cents per pound of zinc metal owing to lower local production and lower imports. Production at Clarksville, TN, in the fourth quarter of 2003 was 16% lower than in the same quarter of 2002; Big River Zinc is believed to be still suffering from occasional problems with its roaster in Sauget, IL; and Kidd Creek, Timmins, Ontario, produced 47% less refined zinc in the fourth-quarter than a year before. U.S. imports in 2003 amounted to 862,600 t, which was 17% less than in 2002 and the lowest since 1996 (CRU International Ltd., 2004d).

A two-tier market is developing in zinc treatment charges (TC) owing to increased mine output in Europe, a tightening supply in Asia, and differing freight rates. Because of the closure of over 400,000 t of European smelter capacity in 2003, reopening of the Tara Mine in Ireland, increasing strength of the euro against the dollar, and the recent decrease in trans-Atlantic freight rates, the European smelters are likely to ask for a rise in TC. Because of the increase in trans-Pacific rates and increased demand for zinc concentrate, the Asian smelters will probably agree to lower TC (Platts Metals Week, 2004b).

Noranda Inc. of Canada produced 396,000 t of zinc in concentrate in 2003, which was about 9% more than in 2002 due to higher ore grade at its two Canadian mines. The Brunswick Mine in Bathurst, New Brunswick, produced 286,500 t and the Bell-Allard Mine in Matagami, Quebec, produced 109,700 t in 2003 (Platts Metals Week, 2004a).

Pasminco Ltd.'s smelter in Clarksville, TN, produced 25,700 t of refined zinc in the fourth quarter of 2003, which was about 16% less than that of the same period in 2002. The decline was precipitated by falling grades at its Clinch Valley Mine, the company's last remaining mine in the United States. The mine, which is to close in mid 2004, produced 22% less zinc in concentrate in 2003 compared with 2002 (CRU International Ltd., 2004c).

Liuzhou Longcheng Chemical Industry Plant was forced to cut back zinc production to one-third of capacity owing to electric power shortages in the Guangxi region of China. Liuzhou was the fifth largest zinc producer in China in 2003, with an output of 84,300 t (CRU International Ltd., 2004b). The power shortages came at an inopportune time for China. Zinc consumption grew an estimated 13% in 2003, driven by a 33% increase in investment in construction and an 81% increase in car production (CRU International Ltd., 2004a).

References Cited

- CRU International Ltd., 2004a, China is a net importer of zinc's first uses: CRU International Ltd., February 19, p. 10.
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Platts Metals Week, 2004a, Noranda 2003 zinc output up 9%: Platts Metals Week, v. 75, no. 7, February 16, p. 10.
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TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

| | 2003 | | | 2004 January |
|---|----------------------|----------|---------------------|---------------------|
| | January- December | November | December | |
| Production: | | | | |
| Mine, zinc content of concentrate | 768,000 ^r | 63,400 | 62,900 | 60,400 |
| Mine, recoverable zinc | 738,000 | 61,000 | 60,500 | 58,100 |
| Smelter, refined zinc | 272,000 | 23,500 | 20,200 | 26,900 |
| Consumption: | | | | |
| Refined zinc, reported | 423,000 | 35,300 | 36,400 ^r | 35,500 |
| Ores ^e (zinc content) | 727 | 61 | 61 | 61 |
| Zinc-base scrap ^e (zinc content) | 191,000 | 15,900 | 15,900 | 15,900 |
| Copper-base scrap ^e (zinc content) | 176,000 | 14,700 | 14,700 | 14,700 |
| Aluminum-and magnesium-base scrap ^e (zinc content) | 1,430 | 120 | 120 | 120 |
| Total ^e | 791,000 | 66,100 | 67,200 ^r | 66,200 |
| Apparent consumption, metal ² | 1,050,000 | 82,100 | 98,100 | 98,900 ³ |
| Stocks of refined (slab) zinc, end of period: | | | | |
| Producer ⁴ | XX | 8,010 | 7,660 | 6,440 |
| Consumer ⁵ | XX | 56,700 | 55,300 | 55,500 |
| Merchant | XX | 10,100 | 10,300 | 9,920 |
| Total | XX | 74,800 | 73,300 | 71,800 |
| Shipments of zinc metal from Government stockpile | 13,600 | 539 | 6,270 | 3,340 |
| Imports for consumption: | | | | |
| Refined (slab) zinc | 758,000 | 70,300 | 67,500 | NA |
| Oxide (gross weight) | 98,300 | 7,150 | 8,880 | NA |
| Ore and concentrate (zinc content) | 164,000 | 7,060 | 27,100 | NA |
| Exports: | | | | |
| Refined (slab) zinc | 1,680 | 161 | 205 | NA |
| Oxide (gross weight) | 12,100 | 912 | 1,160 | NA |
| Ore and concentrate (zinc content) | 841,000 | 18,800 | 35,100 | NA |
| Waste and scrap (gross weight) | 50,200 | 6,690 | 3,810 | NA |
| Price: | | | | |
| London Metal Exchange, average, dollars per metric ton | \$827.32 | \$914.16 | \$977.35 | \$1,020.00 |
| Platts Metals Week North American Special High Grade, average, cents per pound | 40.63 | 44.80 | 47.85 | 49.93 |

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

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.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES¹

(Metric tons)

| Month | Beginning stocks ² | Production | Shipments | Ending stocks ² |
|------------------|-------------------------------|------------|-----------|----------------------------|
| 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 |
| July | 7,770 | 22,100 | 21,500 | 8,360 |
| August | 8,360 | 23,500 | 23,600 | 8,230 |
| September | 8,230 | 21,600 | 22,100 | 7,790 |
| October | 7,790 | 21,800 | 21,300 | 8,300 |
| November | 8,300 | 23,500 | 23,800 | 8,010 |
| December | 8,010 | 20,200 | 20,500 | 7,660 |
| January-December | XX | 272,000 | 273,000 | XX |
| 2004: | | | | |
| January | 7,660 | 26,900 | 28,100 | 6,440 |

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 | 2003 | | | 2004 |
|-------------------------|------------------|----------|----------|----------------------|
| | January-December | November | December | January ² |
| Galvanizing: | | | | |
| Sheet and strip | 442,000 | 34,200 | 41,100 | 40,800 |
| Other | 146,000 | 10,900 | 14,100 | 14,300 |
| Total | 588,000 | 45,100 | 55,300 | 55,100 |
| Brass and bronze | 167,000 | 13,100 | 15,400 | 16,000 |
| Zinc-base alloy | 222,000 | 17,400 | 20,300 | 20,600 |
| Other uses ³ | 70,700 | 6,400 | 7,100 | 7,300 |
| Grand total | 1,050,000 | 82,100 | 98,100 | 98,900 |

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 |
| 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 |
| July | 40.54 | 37.52 | 827.19 |
| August | 40.10 | 37.08 | 817.48 |
| September | 40.07 | 37.10 | 817.81 |
| October | 43.70 | 40.71 | 897.54 |
| November | 44.80 | 41.47 | 914.16 |
| December | 47.85 | 44.33 | 977.35 |
| January-December | 40.63 | 37.53 | 827.32 |
| 2004: | | | |
| January | 49.93 | 46.11 | 1,016.62 |

¹Special High Grade.

Source: Platts Metals Week.

TABLE 5
U.S. EXPORTS OF ZINC¹

| Material | 2002 | | 2003 ² | | | |
|--------------------------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | December | | Year to date | |
| | | | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Refined (slab) zinc | 1,160 | \$1,210 | 205 | \$215 | 1,680 | \$1,760 |
| Ore and concentrate (zinc content) | 822,000 | 322,000 | 35,100 | 8,760 | 841,000 | 337,000 |
| Waste and scrap (gross weight) | 47,700 | 23,000 | 3,810 | 2,700 | 50,200 | 32,600 |
| Powders, flakes, dust (zinc content) | 5,660 | 8,120 | 464 | 758 | 6,550 | 9,090 |
| Oxide (gross weight) | 10,800 | 14,600 | 1,160 | 1,740 | 12,100 | 15,200 |
| Chloride (gross weight) | 1,950 | 1,930 | 68 | 110 | 1,470 | 1,650 |
| Sulfate (gross weight) | 2,900 | 1,760 | 79 | 43 | 2,310 | 1,440 |
| Compounds, other (gross weight) | 217 | 600 | 43 | 91 | 183 | 472 |

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

²Data for January 2004 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) | December | | Year to date | |
| | | | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Refined (slab) zinc | 874,000 | \$716,000 | 67,500 | \$63,400 | 758,000 | \$647,000 |
| Ore and concentrate (zinc content) | 122,000 | 44,600 | 27,100 | 12,300 | 164,000 | 60,000 |
| Waste and scrap (gross weight) | 31,200 | 9,530 | 779 | 457 | 10,300 | 5,740 |
| Powders, flakes, dust (zinc content) | 30,900 | 47,800 | 1,820 | 2,790 | 27,400 | 41,200 |
| Oxide (gross weight) | 69,700 | 57,600 | 8,880 | 5,710 | 98,300 | 72,200 |
| Chloride (gross weight) | 716 | 775 | 49 | 99 | 663 | 914 |
| Sulfate (gross weight) | 20,100 | 10,300 | 2,480 | 1,240 | 25,800 | 11,700 |
| Compounds, other (gross weight) | 1,030 | 1,180 | 126 | 100 | 1,010 | 951 |

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

²Data for January 2004 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 |
|------------------|------------------------|-----------|---------------------|
| 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 | 107,000 | -- | 107,000 |
| July | 107,000 | 3,530 | 104,000 |
| August | 104,000 | 712 | 103,000 |
| September | 103,000 | 841 | 102,000 |
| October | 102,000 | -- | 102,000 |
| November | 102,000 | 539 | 102,000 |
| December | 102,000 | 6,270 | 95,200 |
| January-December | XX | 13,600 | XX |
| 2004: | | | |
| January | 95,200 | 3,340 | 91,900 |

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 | |
| | | December | Year to date | | December | Year to date |
| Ore and concentrate (zinc content): | | | | | | |
| Australia | 41,800 | 16,000 | 43,400 | 41,800 | 16,000 | 43,400 |
| Ireland | 6,570 | 4,770 | 36,500 | 6,570 | 4,770 | 36,500 |
| Mexico | 12,700 | 3,520 | 9,400 | 12,700 | 3,520 | 9,400 |
| Peru | 61,100 | 2,830 | 74,600 | 61,100 | 2,830 | 74,600 |
| Other | 118 | -- | -- | 118 | -- | -- |
| Total | 122,000 | 27,100 | 164,000 | 122,000 | 27,100 | 164,000 |
| Blocks, pigs, or slab: | | | | | | |
| Australia | 35,000 | -- | 22,000 | 21,000 | 398 | 14,400 |
| Brazil | 30,200 | 5,830 | 27,600 | 30,200 | 5,830 | 22,400 |
| Canada | 523,000 | 41,600 | 498,000 | 523,000 | 41,600 | 498,000 |
| China | 39,700 | 26 | 23,800 | 1,040 | 26 | 48 |
| Japan | 10,500 | -- | 50 | -- | -- | -- |
| Kazakhstan | 93,200 | -- | 19,700 | 93,200 | -- | 19,700 |
| Korea, Republic of | 76,200 | -- | 34,000 | 2,480 | 1,320 | 1,340 |
| Mexico | 136,000 | 14,600 | 141,000 | 136,000 | 14,600 | 141,000 |
| Peru | 36,000 | 3,690 | 43,400 | 34,300 | 3,690 | 42,900 |
| Poland | 9,340 | -- | 1,600 | 9,340 | -- | 1,600 |
| Russia | 10,700 | -- | -- | 10,700 | -- | -- |
| Other | 25,200 | 81 | 17,100 | 13,100 | 81 | 16,200 |
| Total | 1,020,000 | 65,700 | 829,000 | 874,000 | 67,500 | 758,000 |
| Dross, ashes, fume (zinc content) | 15,500 | 1,300 | 14,100 | 15,500 | 1,300 | 14,100 |
| Grand total | 1,160,000 | 94,100 | 1,010,000 | 1,010,000 | 95,900 | 936,000 |
| Oxide (gross weight): | | | | | | |
| Canada | 44,800 | 3,260 | 47,300 | 44,800 | 3,260 | 47,300 |
| China | 838 | 44 | 575 | 838 | 44 | 575 |
| Japan | 869 | 59 | 965 | 869 | 59 | 965 |
| Mexico | 19,900 | 4,480 | 40,500 | 19,900 | 4,480 | 40,500 |
| Netherlands | 2,640 | 612 | 4,820 | 2,640 | 612 | 4,820 |
| Other | 760 | 428 | 4,190 | 760 | 428 | 4,190 |
| Total | 69,700 | 8,880 | 98,300 | 69,700 | 8,880 | 98,300 |
| Other (gross weight): | | | | | | |
| Waste and scrap | 31,200 | 779 | 10,300 | 31,200 | 779 | 10,300 |
| Sheets | 1,640 | 70 | 1,790 | 1,640 | 70 | 1,790 |
| Powders, flakes, dust (zinc content) | 30,900 | 1,820 | 27,500 | 30,900 | 1,820 | 27,400 |

-- Zero.

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

²Data for January 2004 were not available at time of publication.

Source: U.S. Census Bureau.