

Mineral Industry Surveys

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ZINC IN FEBRUARY 2009

Domestic mine production (recoverable) of zinc in February 2009 was 57,700 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in February was 2,060 t, 8% lower than that in January and 3% lower than that in February 2008.

The Platts Metals Week average price for North American Special High Grade (SHG) Zinc for February 2009 was 53.44 cents per pound, 6% lower than the January average price and 53% lower than the February 2008 average price. The average London Metal Exchange Ltd. (LME) cash price of SHG zinc for February 2009 decreased to \$1,111.75 per metric ton, 6% lower than the average price in January and a 54% decrease compared with the average price in February 2008. During February 2009, global LME stocks of SHG zinc rose by 12,450 t to 357,725 t.

State-owned China Minmetals Corp. (Beijing, China) proposed to take over Australian zinc and base metal mining company OZ Minerals, Ltd. at an offer price of A\$0.825 per share. The offer represented a 50% increase from OZ's last traded share price in November 2008, which was when the company requested a trading halt while it negotiated with lenders for an extension on its debt repayment. Minmetals' offer was reported to have been made with the long-term objective of securing more raw material supply for China in the future. Additionally, the zinc concentrate originating from Australia reportedly has a lower iron content than the zinc mined in China, making the Australian concentrate less costly for the Chinese smelters to process. In 2008, China imported 2.38 million metric tons of zinc concentrate (Gilcrest, 2009).

In early February, Chinese metal producer Shenzhen Zhongjin Lingnan Nonfermet Co., Ltd. acquired a 50.1% interest in Australian zinc and base metals mining company Perilya, Ltd. through an A\$45.5 million share placement. Perilya owns the Broken Hill zinc-lead-silver mine (Australia), the Flinders zinc silicate project (Australia), and the Mount Oxide copper and cobalt project (Australia). Perilya stated that the placement of shares in Zhongjin Lingnan, along with downsizing operations at Broken Hill, placed the company in the best possible position to sustain its operations in the current market (Perilya, Ltd., 2009).

On February 20, Xstrata plc (Zug, Switzerland) announced that it had gained conditional approval from Australia's

Federal Environment Minister to convert the McArthur River zinc-lead mine from an underground mine to an open-pit operation, thereby extending mine life by 25 years. Operations were to restart immediately; mining had been suspended since mid-December 2008 after a federal court ruling reversed previous Government approval for the development plan.

The McArthur River Mine has accounted for a significant portion of Australia's zinc in concentrate production and is the leading global producer of bulk zinc concentrate, which is a zinc concentrate with a high lead content. Bulk zinc concentrate is mainly processed at zinc smelters that employ the Imperial Smelting Process (ISP). The McArthur River Mine was an important supplier of bulk zinc concentrate to the world's ISP zinc smelters; in 2006, it was estimated that the mine supplied about 20% of global ISP zinc smelting capacity on a contained zinc basis (Northern Territory Government, 2006; Xstrata plc, 2009).

Canadian zinc metal producer Noranda Income Fund, owner of the CEZinc refinery in Salaberry-de-Valleyfield, Quebec, announced that its byproduct sulfuric acid sales have significantly decreased since January 2009 owing to a drop in industrial activity. The company stated that if demand for sulfuric acid did not improve, its sulfuric acid storage capacity may become limited, which would curb the refinery's ability to process zinc concentrate and produce zinc metal (Noranda Income Fund, 2009).

References Cited

- Gilcrest, Laura, 2009, Minmetals buying OZ seen as boon for China's zinc sector: Platts Metals Week, v. 80, no. 8, February 23, p. 1, 11-12.
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- Northern Territory Government, 2006, McArthur River Mine open cut project Draft Environmental Impact Statement—Section 2: Darwin, Australia, Northern Territory Government, 7 p.
- Perilya, Ltd., 2009, Placement of Zhongjin receives green light: Leederville, Australia, Perilya, Ltd. news release, February 5, 2 p.
- Xstrata plc, 2009, Xstrata Zinc welcomes Minister Garrett's decision to approve the McArthur River Mine open-pit expansion: Zug, Switzerland, Xstrata plc news release, February 20, 1 p.

TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

| | 2008 | 2009 | | |
|---|----------------------|---------------------|----------|----------------------|
| | January- December | January | February | January- February |
| Production: | | | | |
| Mine, zinc content of concentrate ² | 778,000 | 71,800 | 59,900 | 132,000 |
| Mine, recoverable zinc ² | 748,000 | 69,300 | 57,700 | 127,000 |
| Smelter, refined zinc ^{e, 3} | 286,000 | 16,300 | 16,300 | 32,700 |
| Consumption: | | | | |
| Apparent, refined zinc ⁴ | 1,000,000 | 78,900 ^r | 69,600 | 148,000 |
| Reported: | | | | |
| Refined zinc | 248,000 | 18,800 ^r | 20,500 | 39,300 |
| Ores ^c (zinc content) | 732 | 61 | 61 | 122 |
| Zinc-base scrap ^c (zinc content) | 178,000 | 14,800 | 14,800 | 29,600 |
| Copper-base scrap ^c (zinc content) | 148,000 | 12,400 | 12,400 | 24,700 |
| Aluminum- and magnesium-base scrap ^c (zinc content) | 603 | 50 | 50 | 101 |
| Total ^e | 575,000 | 46,100 ^r | 47,800 | 93,800 |
| Stocks of refined zinc, end of period: | | | | |
| Producer and consumer ⁵ | XX | 34,700 ^r | 34,700 | XX |
| Shipments of zinc metal from Government stockpile | 250 | -- | -- | -- |
| Imports for consumption: | | | | |
| Refined zinc | 725,000 | 61,400 | 53,500 | 115,000 |
| Oxide (gross weight) | 114,000 | 6,020 | 4,190 | 10,200 |
| Ore and concentrate (zinc content) | 63,200 | 5,410 | -- | 5,410 |
| Waste and scrap (gross weight) | 17,000 | 464 | 670 | 1,130 |
| Exports: | | | | |
| Refined zinc | 3,250 | 168 | 226 | 394 |
| Oxide (gross weight) | 39,900 | 1,520 | 998 | 2,520 |
| Ore and concentrate (zinc content) | 725,000 | 20,000 | 24,300 | 44,300 |
| Waste and scrap (gross weight) | 91,000 | 1,800 | 3,020 | 4,830 |
| Price:⁶ | | | | |
| London Metal Exchange cash, average, dollars per metric ton | 1,874.20 | 1,187.11 | 1,111.75 | 1,149.43 |
| Platts Metals Week North American, average, cents per pound | 88.93 | 56.94 | 53.44 | 55.19 |

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

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

²Partially estimated.

³Includes zinc metal used to manufacture zinc oxide.

⁴Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

⁵Does not include an estimate for companies that report annually.

⁶Special High Grade Zinc.

TABLE 2
APPARENT CONSUMPTION OF REFINED ZINC ACCORDING
TO INDUSTRY USE AND PRODUCT¹

(Metric tons)

| | 2008 | 2009 | | January- February |
|-------------------------|----------------------|----------------------|----------|----------------------|
| | January- December | January ^r | February | |
| Galvanizing: | | | | |
| Sheet and strip | 438,000 | 34,700 | 30,300 | 64,900 |
| Other | 168,000 | 13,500 | 11,100 | 24,600 |
| Total | 606,000 | 48,100 | 41,400 | 89,500 |
| Brass and bronze | 165,000 | 12,200 | 12,400 | 24,600 |
| Zinc-base alloy | 149,000 | 11,800 | 9,690 | 21,500 |
| Other uses ² | 81,600 | 6,720 | 6,140 | 12,900 |
| Grand total | 1,000,000 | 78,900 | 69,600 | 148,000 |

^rRevised.

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

²Includes zinc used in making zinc dust, desilvering lead, powder, alloys, anodes, chemicals, casting, light metal alloys, rolled zinc, and miscellaneous uses not elsewhere specified.

TABLE 3
SHIPMENTS OF ZINC METAL FROM THE NATIONAL
DEFENSE STOCKPILE¹

(Metric tons)

| Period | Shipments | Ending inventory ² |
|---------------------|-----------------|----------------------------------|
| 2008: | | |
| February | NA ³ | 7,730 |
| March | 89 | 7,640 |
| April | -- | 7,640 |
| May | 41 | 7,600 |
| June | -- | 7,600 |
| July | 101 | 7,500 |
| August ⁴ | -- | 7,500 |
| September | -- | 7,500 |
| October | 8 | 7,490 |
| November | -- | 7,490 |
| December | -- | 7,490 |
| January-December | 250 | XX |
| 2009: | | |
| January | -- | 7,490 |
| February | -- | 7,490 |
| January-February | -- | XX |

NA Not available. XX Not applicable. -- Zero.

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

²Includes only uncommitted inventory.

³Monthly shipments are not reflected by changes in inventory due to an inventory adjustment or shipment delay.

⁴On August 6, 2008, the Defense National Stockpile Center announced that sales of zinc from the National Defense Stockpile were suspended until further notice.

Source: Defense National Stockpile Center.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

(Gross weight, unless otherwise specified)

| Material | 2008 | | 2009 | | | |
|------------------------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | February | | Year to date | |
| | | | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Ore and concentrate (zinc content) | 63,200 | \$73,200 | -- | -- | 5,410 | \$3,330 |
| Unwrought: | | | | | | |
| Refined (slab) zinc | 725,000 | 1,480,000 | 53,500 | \$62,300 | 115,000 | 134,000 |
| Zinc alloys | 7,170 | 14,900 | 305 | 392 | 468 | 592 |
| Wrought: | | | | | | |
| Bars, rods, profiles, wire | 2,330 | 6,860 | 86 | 237 | 231 | 528 |
| Plates, sheets, strip, foil | 3,330 | 17,100 | 198 | 1,170 | 556 | 2,900 |
| Other: | | | | | | |
| Dross, ashes, fume (zinc content) | 13,200 | 17,200 | 445 | 372 | 918 | 727 |
| Powders, flakes, dust | 28,500 | 81,200 | 1,640 | 2,980 | 3,170 | 5,780 |
| Waste and scrap | 17,000 | 20,300 | 670 | 506 | 1,130 | 934 |
| Chemicals: | | | | | | |
| Oxide | 114,000 | 192,000 | 4,190 | 5,620 | 10,200 | 13,500 |
| Chloride | 462 | 1,780 | 38 | 58 | 51 | 159 |
| Sulfate | 41,900 | 45,700 | 2,470 | 1,920 | 4,530 | 3,640 |
| Compounds, other ² | 4,600 | 7,650 | 164 | 213 | 343 | 806 |

-- Zero.

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

²Includes zinc sulfide (HTS 2830.90.1000 and 2830.90.1500), chromates of zinc or of lead (HTS 2841.90.4500), and lithopone and other pigments and preparations based on zinc sulfide (HTS 3206.42.0000).

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY¹

(Metric tons, gross weight, unless otherwise specified)

| Material and country | General imports | | | Imports for consumption | | |
|--|-----------------|---------------|----------------|-------------------------|---------------|----------------|
| | 2008 | 2009 | | 2008 | 2009 | |
| | | February | Year to date | | February | Year to date |
| Ore and concentrate (zinc content): | | | | | | |
| Canada | 7,480 | -- | -- | 7,480 | -- | -- |
| Mexico | 2,730 | -- | 5,410 | 2,730 | -- | 5,410 |
| Peru | 53,000 | -- | -- | 53,000 | -- | -- |
| Total | 63,200 | -- | 5,410 | 63,200 | -- | 5,410 |
| Refined (slab) zinc: | | | | | | |
| Argentina | 5,010 | -- | -- | 5,010 | -- | -- |
| Australia | -- | -- | -- | 25 | -- | -- |
| Belgium | 908 | -- | -- | 908 | -- | -- |
| Brazil | 982 | -- | -- | 982 | -- | -- |
| Canada | 563,000 | 44,400 | 89,000 | 563,000 | 44,400 | 89,000 |
| China | 215 | -- | 2 | 1,370 | -- | 2 |
| Germany | 1 | -- | -- | 1 | -- | -- |
| Italy | 17 | -- | -- | 17 | -- | -- |
| Japan | 1,220 | -- | -- | 1,220 | -- | -- |
| Kazakhstan | 38,100 | -- | 493 | 38,100 | -- | 493 |
| Korea, Republic of | -- | -- | -- | 702 | -- | -- |
| Mexico | 90,800 | 8,040 | 18,000 | 90,800 | 8,040 | 18,000 |
| Peru | 21,200 | 1,020 | 7,410 | 21,200 | 1,060 | 7,450 |
| Spain | -- | -- | -- | 40 | -- | -- |
| Sweden | 2 | -- | -- | 2 | -- | -- |
| Taiwan | 18 | -- | -- | 18 | -- | -- |
| Uzbekistan | 2,260 | -- | -- | 2,260 | -- | -- |
| Total | 724,000 | 53,500 | 115,000 | 725,000 | 53,500 | 115,000 |
| Dross, ashes, fume (zinc content) | | | | | | |
| | 13,200 | 445 | 918 | 13,200 | 445 | 918 |
| Grand total | 800,000 | 53,900 | 121,000 | 802,000 | 53,900 | 121,000 |
| Oxide: | | | | | | |
| Australia | 81 | -- | 338 | 81 | -- | 338 |
| Belgium | 11,600 | -- | -- | 11,600 | -- | -- |
| Canada | 40,400 | 2,120 | 4,910 | 40,400 | 2,120 | 4,910 |
| China | 346 | -- | 19 | 346 | -- | 19 |
| Germany | 1,150 | -- | 20 | 1,150 | -- | 20 |
| Italy | 25,100 | -- | -- | 25,100 | -- | -- |
| Japan | 1,490 | 6 | 172 | 1,490 | 6 | 172 |
| Mexico | 26,100 | 1,680 | 4,310 | 26,100 | 1,680 | 4,310 |
| Netherlands | 5,470 | 377 | 393 | 5,470 | 377 | 393 |
| Norway | 3 | -- | 2 | 3 | -- | 2 |
| Peru | 1,150 | 10 | 47 | 1,150 | 10 | 47 |
| Spain | 681 | -- | -- | 681 | -- | -- |
| Other | 310 | -- | -- | 310 | -- | -- |
| Total | 114,000 | 4,190 | 10,200 | 114,000 | 4,190 | 10,200 |

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF ZINC¹

(Gross weight, unless otherwise specified)

| Material | 2008 | | 2009 | | | |
|------------------------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | February | | Year to date | |
| | | | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Ore and concentrate (zinc content) | 725,000 | \$598,000 | 24,300 | \$11,800 | 44,300 | \$21,700 |
| Unwrought: | | | | | | |
| Refined (slab) zinc | 3,250 | 3,260 | 226 | 256 | 394 | 432 |
| Zinc alloys | 8,550 | 22,800 | 257 | 488 | 569 | 1,150 |
| Wrought: | | | | | | |
| Bars, rods, profiles, wire | 28,100 | 47,500 | 927 | 1,500 | 2,060 | 3,670 |
| Plates, sheets, strip, foil | 4,970 | 20,900 | 149 | 439 | 616 | 1,980 |
| Other: | | | | | | |
| Dross, ashes, fume (zinc content) | 10,500 | 5,120 | 515 | 411 | 739 | 614 |
| Powders, flakes, dust | 13,000 | 28,500 | 895 | 1,630 | 1,590 | 2,950 |
| Waste and scrap | 91,000 | 99,100 | 3,020 | 3,190 | 4,830 | 4,740 |
| Chemicals: | | | | | | |
| Oxide | 39,900 | 61,700 | 998 | 1,380 | 2,520 | 3,990 |
| Chloride | 1,830 | 2,110 | 117 | 137 | 201 | 237 |
| Sulfate | 578 | 799 | 39 | 87 | 54 | 115 |
| Compounds, other ² | 7,210 | 11,900 | 218 | 599 | 534 | 1,640 |

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

²Includes zinc sulfide (Schedule B 2830.90.1000 and 2830.90.1500), chromates of zinc or of lead (Schedule B 2841.90.4500), and lithopone and other pigments and preparations based on zinc sulfide (Schedule B 3206.42.0000).

Source: U.S. Census Bureau.

TABLE 7
AVERAGE PRICES FOR SPECIAL HIGH GRADE ZINC

| Period | North American ¹ ¢/lb. | London Metal Exchange cash ² | |
|------------------|---|--|----------|
| | | ¢/lb. | \$/t |
| 2008: | | | |
| February | 114.60 | 110.57 | 2,437.60 |
| March | 117.67 | 113.90 | 2,511.01 |
| April | 106.43 | 102.66 | 2,263.16 |
| May | 102.80 | 98.96 | 2,181.63 |
| June | 89.93 | 85.91 | 1,893.89 |
| July | 88.02 | 84.00 | 1,851.88 |
| August | 82.17 | 78.14 | 1,722.70 |
| September | 82.72 | 78.70 | 1,735.05 |
| October | 63.01 | 59.03 | 1,301.49 |
| November | 55.84 | 52.26 | 1,152.16 |
| December | 53.42 | 49.90 | 1,100.01 |
| January-December | 88.93 | 85.01 | 1,874.20 |
| 2009: | | | |
| January | 56.94 | 53.85 | 1,187.11 |
| February | 53.44 | 50.43 | 1,111.75 |
| January-February | 55.19 | 52.14 | 1,149.43 |

¹Platts Metals Week North American price. Based on the London Metal Exchange cash price plus premiums or discounts, depending on market conditions.

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

Source: Platts Metals Week.