

# Mineral Industry Surveys

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## ZINC IN AUGUST 2021

Domestic mine production (recoverable) of zinc in August 2021 was 66,300 metric tons (t) (tables 1, 2). Mine production (recoverable) for the year through August was 477,000 t of zinc in concentrate, 8% more than that for the same period in 2020. Average daily mine production in August was 2,140 t, 16% more than the revised amount in the previous month but 13% less than that in August 2020 (fig. 1).

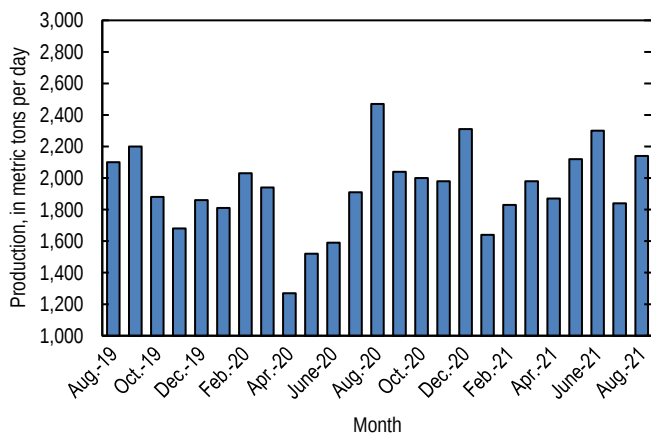


Figure 1. Average daily domestic zinc mine production (recoverable) from August 2019 through August 2021.

## Stocks and Prices

Global London Metal Exchange Ltd. (LME) stocks of Special High Grade (SHG) zinc were 236,425 t at the end of August 2021, 4% less than stocks at the end of the previous month but 7% more than those at the end of August 2020 (fig. 2, table 8). Reported off-warrant stocks of SHG zinc in LME-approved warehouses at the end of August 2021 decreased to 59,519 t from 81,426 t at the end of July 2021 (London Metal Exchange Ltd., 2021a, b).

The monthly average S&P Global Platts Metals Week North American SHG zinc price in August 2021 was \$1.44 per pound, slightly more compared with that in the previous month and

23% more than that in August 2020. The August 2021 average LME cash price for SHG zinc was \$2,988.91 per metric ton (\$1.36 per pound), slightly more compared with that in the previous month and 24% more than that in August 2020 (fig. 3, table 7).

The North American premium to the LME cash price in August 2021 averaged 8.5 cents per pound, 4% more than that in the previous month and 9% more than that in August 2020 (fig. 3, table 7).

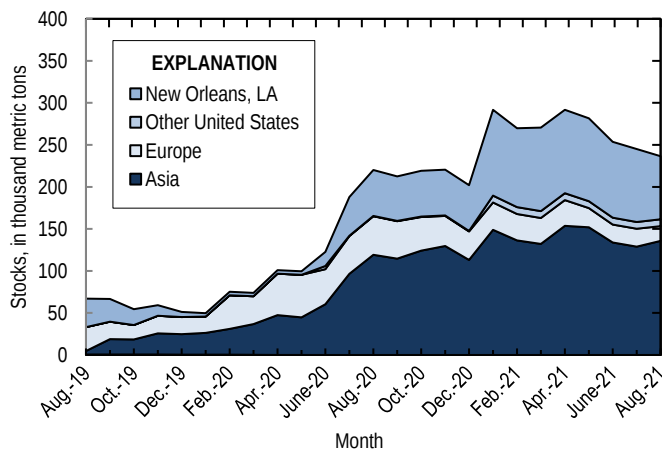


Figure 2. Global LME stocks of Special High Grade zinc, monthend, from August 2019 through August 2021. Source: London Metal Exchange Ltd.

## References Cited

- London Metal Exchange Ltd., 2021a, Off warrant stock reporting August 2021: London, United Kingdom, London Metal Exchange Ltd. (Accessed October 21, 2021, via <https://www.lme.com/en-GB/Market-Data/Reports-and-data/Warehouse-and-stocks-reports/Off-warrant-stock-reporting>.)
- London Metal Exchange Ltd., 2021b, Off warrant stock reporting July 2021: London, United Kingdom, London Metal Exchange Ltd. (Accessed September 24, 2021, via <https://www.lme.com/en-GB/Market-Data/Reports-and-data/Warehouse-and-stocks-reports/Off-warrant-stock-reporting>.)

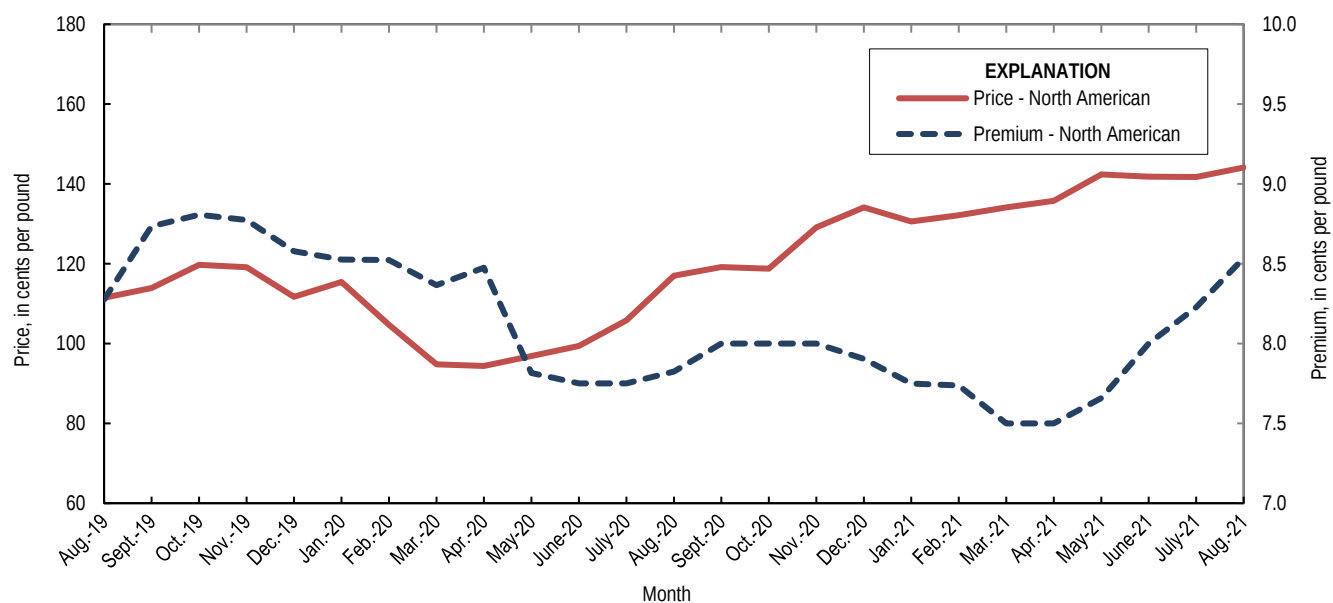


Figure 3. Average monthly North American price and premium for Special High Grade zinc from August 2019 through August 2021. Source: S&P Global Platts Metals Week.

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

(Metric tons, unless otherwise specified)

|                                                                | 2020<br>January–<br>December | 2021                |          |                                 |
|----------------------------------------------------------------|------------------------------|---------------------|----------|---------------------------------|
|                                                                |                              | July                | August   | January–<br>August <sup>2</sup> |
| Production:                                                    |                              |                     |          |                                 |
| Mine, zinc content of concentrate <sup>3</sup>                 | 718,000                      | 58,200 <sup>r</sup> | 67,700   | 488,000                         |
| Mine, recoverable zinc <sup>3</sup>                            | 697,000                      | 56,900 <sup>r</sup> | 66,300   | 477,000                         |
| Smelter, refined zinc <sup>e</sup>                             | 180,000                      | 18,000              | 18,000   | 144,000                         |
| Consumption of refined zinc, apparent <sup>4,5</sup>           | 878,000                      | 71,600              | 94,900   | 610,000                         |
| Imports for consumption:                                       |                              |                     |          |                                 |
| Ore and concentrate (zinc content)                             | 3,170                        | 388                 | 527      | 7,690                           |
| Refined zinc                                                   | 700,000                      | 53,800              | 77,200   | 470,000                         |
| Exports:                                                       |                              |                     |          |                                 |
| Ore and concentrate (zinc content)                             | 546,000                      | 24,400              | 127,000  | 220,000                         |
| Refined zinc                                                   | 2,480                        | 241                 | 280      | 3,740                           |
| Price: <sup>6</sup>                                            |                              |                     |          |                                 |
| London Metal Exchange cash, average,<br>dollars per metric ton | 2,264.42                     | 2,942.98            | 2,988.91 | 2,865.27                        |
| North American, <sup>7</sup> average,<br>cents per pound       | 110.79                       | 141.72              | 144.11   | 137.83                          |

<sup>1</sup>Revised.

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Reported zinc content in zinc, lead, and bulk concentrates.

<sup>4</sup>Smelter production plus imports for consumption minus domestic exports.

<sup>5</sup>Apparent consumption of refined zinc in 2020 and 2021 may not reflect actual consumption owing to changes in unreported stocks, potentially related to the COVID-19 pandemic.

<sup>6</sup>Special High Grade Zinc.

<sup>7</sup>S&P Global Platts Metals Week.

TABLE 2  
MINE AND SMELTER PRODUCTION OF ZINC  
IN THE UNITED STATES<sup>1</sup>

(Metric tons)

| Period           | Mine <sup>2</sup>   |                     | Smelter <sup>c</sup> |
|------------------|---------------------|---------------------|----------------------|
|                  | Zinc content        | Recoverable         |                      |
| 2020:            |                     |                     |                      |
| August           | 78,800              | 76,400              | 16,000               |
| September        | 62,900              | 61,100              | 16,000               |
| October          | 63,900              | 62,000              | 18,000               |
| November         | 61,100              | 59,300              | 18,000               |
| December         | 73,600              | 71,500              | 18,000               |
| January–December | 718,000             | 697,000             | 180,000              |
| 2021:            |                     |                     |                      |
| January          | 52,000              | 50,800              | 18,000               |
| February         | 52,300              | 51,200              | 18,000               |
| March            | 62,600              | 61,300              | 18,000               |
| April            | 57,500 <sup>r</sup> | 56,200 <sup>r</sup> | 18,000               |
| May              | 67,100 <sup>r</sup> | 65,700 <sup>r</sup> | 18,000               |
| June             | 70,400 <sup>r</sup> | 68,900 <sup>r</sup> | 18,000               |
| July             | 58,200 <sup>r</sup> | 56,900 <sup>r</sup> | 18,000               |
| August           | 67,700              | 66,300              | 18,000               |
| January–August   | 488,000             | 477,000             | 144,000              |

<sup>r</sup>Revised.

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

<sup>2</sup>Includes the zinc content in both lead and zinc concentrates.

TABLE 3  
U.S. SHIPMENTS OF  
GALVANIZED STEEL SHEET AND STRIP<sup>1</sup>

| Period           | Quantity<br>(metric tons) |
|------------------|---------------------------|
| 2020:            |                           |
| August           | 1,310,000                 |
| September        | 1,360,000                 |
| October          | 1,400,000                 |
| November         | 1,360,000                 |
| December         | 1,410,000                 |
| January–August   | 9,660,000                 |
| January–December | 15,200,000                |
| 2021:            |                           |
| January          | 1,360,000                 |
| February         | 1,260,000                 |
| March            | 1,470,000                 |
| April            | 1,530,000                 |
| May              | 1,540,000                 |
| June             | 1,560,000                 |
| July             | 1,590,000                 |
| August           | 1,620,000                 |
| January–August   | 11,900,000                |

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

Source: American Iron and Steel Institute.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF ZINC<sup>1</sup>

(Gross weight, unless otherwise specified)

| Material                           | 2020                      |                      | 2021                      |                      |                             |                      |
|------------------------------------|---------------------------|----------------------|---------------------------|----------------------|-----------------------------|----------------------|
|                                    | Quantity<br>(metric tons) | Value<br>(thousands) | August                    |                      | January–August <sup>2</sup> |                      |
|                                    |                           |                      | Quantity<br>(metric tons) | Value<br>(thousands) | Quantity<br>(metric tons)   | Value<br>(thousands) |
| Ore and concentrate (zinc content) | 3,170                     | \$4,410              | 527                       | \$441                | 7,690                       | \$7,190              |
| Unwrought:                         |                           |                      |                           |                      |                             |                      |
| Refined zinc                       | 700,000                   | 1,600,000            | 77,200                    | 219,000              | 470,000                     | 1,330,000            |
| Zinc alloys                        | 1,370                     | 3,680                | 370                       | 1,120                | 4,240                       | 12,200               |
| Wrought:                           |                           |                      |                           |                      |                             |                      |
| Bars, rods, profiles, wire         | 3,260                     | 10,200               | 309                       | 1,080                | 2,590                       | 9,380                |
| Plates, sheets, strip, foil        | 2,570                     | 11,500               | 93                        | 506                  | 1,210                       | 6,150                |
| Ash and residues:                  |                           |                      |                           |                      |                             |                      |
| Zinc dross and skimmings           | 3,800                     | 5,680                | 495                       | 863                  | 3,040                       | 5,600                |
| Other (zinc content)               | 1,130                     | 717                  | 602                       | 386                  | 1,840                       | 1,390                |
| Other:                             |                           |                      |                           |                      |                             |                      |
| Powders, flakes, dust              | 24,600                    | 83,700               | 1,930                     | 7,770                | 18,000                      | 69,600               |
| Waste and scrap                    | 11,400                    | 15,800               | 717                       | 1,430                | 8,240                       | 13,900               |
| Chemicals:                         |                           |                      |                           |                      |                             |                      |
| Lithopone                          | 1,150                     | 4,200                | 24                        | 111                  | 1,120                       | 3,380                |
| Zinc oxide                         | 102,000                   | 252,000              | 8,600                     | 24,800               | 74,500                      | 202,000              |
| Zinc chloride                      | 275                       | 1,640                | 13                        | 135                  | 122                         | 847                  |
| Zinc sulfate                       | 92,600                    | 70,900               | 11,200                    | 12,800               | 71,000                      | 71,100               |
| Zinc sulfide                       | 964                       | 4,720                | 32                        | 226                  | 724                         | 4,220                |

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

<sup>2</sup>May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY OR LOCALITY<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

| Material and country or locality    | General imports |        |                             | Imports for consumption |        |                             |
|-------------------------------------|-----------------|--------|-----------------------------|-------------------------|--------|-----------------------------|
|                                     | 2020            | 2021   |                             | 2020                    | 2021   |                             |
|                                     |                 | August | January–August <sup>2</sup> |                         | August | January–August <sup>2</sup> |
| Ore and concentrate (zinc content): |                 |        |                             |                         |        |                             |
| Canada                              | --              | 466    | 1,510                       | --                      | 466    | 1,510                       |
| China                               | 1,060           | 61     | 119                         | 1,060                   | 61     | 119                         |
| Germany                             | --              | --     | 47                          | --                      | --     | 47                          |
| Mexico                              | (3)             | --     | 396                         | (3)                     | --     | 396                         |
| Peru                                | 2,100           | --     | 5,620                       | 2,100                   | --     | 5,620                       |
| Total                               | 3,170           | 527    | 7,690                       | 3,170                   | 527    | 7,690                       |
| Refined zinc:                       |                 |        |                             |                         |        |                             |
| Australia                           | 33,000          | 148    | 1,340                       | 2,000                   | 6,650  | 18,400                      |
| Belgium                             | 24,100          | --     | --                          | 1                       | 815    | 815                         |
| Brazil                              | 21,900          | --     | 350                         | 13,400                  | 4,480  | 8,820                       |
| Canada                              | 489,000         | 39,200 | 323,000                     | 489,000                 | 39,200 | 323,000                     |
| China                               | 108             | --     | (3)                         | 108                     | --     | (3)                         |
| Germany                             | --              | --     | 861                         | --                      | --     | 861                         |
| India                               | (3)             | --     | --                          | (3)                     | --     | --                          |
| Japan                               | --              | --     | (3)                         | --                      | --     | (3)                         |
| Korea, Republic of                  | 39,100          | --     | 9,110                       | 21,100                  | 10,400 | 25,400                      |
| Mexico                              | 130,000         | 10,700 | 64,600                      | 130,000                 | 10,700 | 64,600                      |
| Netherlands                         | 1,470           | --     | --                          | --                      | 124    | 124                         |
| Peru                                | 44,400          | 3,690  | 23,600                      | 44,400                  | 3,690  | 23,600                      |
| Poland                              | 100             | --     | 197                         | 100                     | --     | 197                         |
| Spain                               | 20,000          | --     | --                          | 123                     | 1,110  | 3,780                       |
| Taiwan                              | 24              | --     | --                          | 24                      | --     | --                          |
| Total                               | 803,000         | 53,700 | 423,000                     | 700,000                 | 77,200 | 470,000                     |
| Oxide:                              |                 |        |                             |                         |        |                             |
| Australia                           | 538             | 8      | 108                         | 538                     | 8      | 108                         |
| Canada                              | 42,600          | 3,760  | 30,900                      | 42,600                  | 3,760  | 30,900                      |
| China                               | 175             | 2      | 94                          | 175                     | 2      | 94                          |
| Germany                             | 1,160           | 87     | 1,020                       | 1,160                   | 87     | 1,020                       |
| Greece                              | 798             | 120    | 399                         | 798                     | 120    | 399                         |
| India                               | 47              | 18     | 108                         | 47                      | 18     | 108                         |
| Japan                               | 868             | 73     | 405                         | 868                     | 73     | 405                         |
| Mexico                              | 43,100          | 3,540  | 30,700                      | 43,100                  | 3,540  | 30,700                      |
| Netherlands                         | 9,030           | 261    | 6,580                       | 9,030                   | 261    | 6,580                       |
| Nigeria                             | --              | 299    | 299                         | --                      | 299    | 299                         |
| Peru                                | 3,850           | 357    | 3,520                       | 3,850                   | 357    | 3,520                       |
| Other                               | 211             | 80     | 448                         | 211                     | 80     | 448                         |
| Total                               | 102,000         | 8,600  | 74,500                      | 102,000                 | 8,600  | 74,500                      |

-- Zero.

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. EXPORTS OF ZINC<sup>1</sup>

(Gross weight, unless otherwise specified)

| Material                           | 2020                      |                      | 2021                      |                      |                             |                      |
|------------------------------------|---------------------------|----------------------|---------------------------|----------------------|-----------------------------|----------------------|
|                                    | Quantity<br>(metric tons) | Value<br>(thousands) | August                    |                      | January–August <sup>2</sup> |                      |
|                                    |                           |                      | Quantity<br>(metric tons) | Value<br>(thousands) | Quantity<br>(metric tons)   | Value<br>(thousands) |
| Ore and concentrate (zinc content) | 546,000                   | \$804,000            | 127,000                   | \$290,000            | 220,000                     | \$467,000            |
| Unwrought:                         |                           |                      |                           |                      |                             |                      |
| Refined zinc                       | 2,480                     | 6,810                | 280                       | 921                  | 3,740                       | 11,900               |
| Zinc alloys                        | 19,900                    | 54,000               | 1,970                     | 6,580                | 16,100                      | 51,300               |
| Wrought:                           |                           |                      |                           |                      |                             |                      |
| Bars, rods, profiles, wire         | 9,500                     | 28,900               | 793                       | 2,460                | 7,140                       | 22,800               |
| Plates, sheets, strip, foil        | 5,460                     | 20,300               | 687                       | 2,920                | 5,600                       | 21,800               |
| Ash and residues:                  |                           |                      |                           |                      |                             |                      |
| Hard zinc spelter                  | 9,150                     | 12,300               | 1,460                     | 2,880                | 8,800                       | 16,500               |
| Other (zinc content)               | 23,000                    | 30,700               | 2,540                     | 3,910                | 17,500                      | 28,500               |
| Other:                             |                           |                      |                           |                      |                             |                      |
| Powders, flakes, dust              | 13,500                    | 49,100               | 785                       | 2,990                | 6,270                       | 23,100               |
| Waste and scrap                    | 25,000                    | 29,600               | 4,420                     | 4,530                | 26,900                      | 30,300               |
| Chemicals:                         |                           |                      |                           |                      |                             |                      |
| Lithopone                          | 522                       | 1,900                | 68                        | 362                  | 334                         | 1,680                |
| Zinc oxide                         | 44,900                    | 56,000               | 3,240                     | 5,430                | 43,500                      | 66,600               |
| Zinc chloride                      | 419                       | 747                  | 44                        | 60                   | 262                         | 433                  |
| Zinc sulfate                       | 507                       | 507                  | 30                        | 37                   | 523                         | 435                  |
| Zinc sulfide                       | 1,420                     | 13,000               | 190                       | 1,070                | 1,570                       | 12,100               |

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

<sup>2</sup>May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY OR LOCALITY<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

| Material and country or locality    | 2020    | 2021    |                             |
|-------------------------------------|---------|---------|-----------------------------|
|                                     |         | August  | January-August <sup>2</sup> |
| Ore and concentrate (zinc content): |         |         |                             |
| Australia                           | 63,300  | 20,800  | 20,800                      |
| Belgium                             | 40,000  | 28,900  | 28,900                      |
| Canada                              | 287,000 | 38,200  | 69,900                      |
| China                               | --      | --      | 6,830                       |
| Finland                             | 15,700  | --      | --                          |
| Germany                             | 21,100  | --      | --                          |
| Italy                               | 5,290   | 16,100  | 16,100                      |
| Japan                               | 38,400  | --      | 21,600                      |
| Korea, Republic of                  | 56,500  | 8,040   | 26,200                      |
| Peru                                | 120     | 1,940   | 4,280                       |
| Spain                               | 18,400  | 13,300  | 25,600                      |
| Other                               | 31      | 3       | 32                          |
| Total                               | 546,000 | 127,000 | 220,000                     |
| Refined zinc:                       |         |         |                             |
| Canada                              | 962     | 90      | 733                         |
| India                               | 297     | --      | 33                          |
| Mexico                              | 833     | 169     | 2,920                       |
| Other                               | 387     | 20      | 51                          |
| Total                               | 2,480   | 280     | 3,740                       |
| Oxide:                              |         |         |                             |
| Australia                           | 503     | (3)     | 66                          |
| Brazil                              | 284     | 31      | 189                         |
| Canada                              | 3,290   | 227     | 2,360                       |
| China                               | 232     | 9       | 155                         |
| France                              | 253     | (3)     | 242                         |
| Germany                             | 201     | 51      | 162                         |
| India                               | 385     | 24      | 409                         |
| Mexico                              | 38,500  | 2,810   | 38,700                      |
| Peru                                | 14      | --      | 246                         |
| United Kingdom                      | 218     | --      | 143                         |
| Other                               | 993     | 85      | 805                         |
| Total                               | 44,900  | 3,240   | 43,500                      |

-- Zero.

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8  
AVERAGE PRICES FOR SPECIAL HIGH GRADE ZINC

| Period           | North American |                    | London Metal Exchange |          |
|------------------|----------------|--------------------|-----------------------|----------|
|                  | Premium        | Price <sup>1</sup> | cash <sup>2</sup>     |          |
|                  | ¢/lb.          | ¢/lb.              | ¢/lb.                 | \$/t     |
| 2020:            |                |                    |                       |          |
| August           | 7.8            | 117.00             | 109.17                | 2,406.83 |
| September        | 8.0            | 119.15             | 111.15                | 2,450.50 |
| October          | 8.0            | 118.75             | 110.75                | 2,441.55 |
| November         | 8.0            | 129.10             | 121.10                | 2,669.69 |
| December         | 7.9            | 134.11             | 126.21                | 2,782.36 |
| January–December | 8.1            | 110.79             | 102.71                | 2,264.42 |
| 2021:            |                |                    |                       |          |
| January          | 7.8            | 130.57             | 122.82                | 2,707.70 |
| February         | 7.7            | 132.17             | 124.43                | 2,743.20 |
| March            | 7.5            | 134.13             | 126.63                | 2,791.65 |
| April            | 7.5            | 135.75             | 128.25                | 2,827.35 |
| May              | 7.7            | 142.39             | 134.73                | 2,970.29 |
| June             | 8.0            | 141.81             | 133.81                | 2,950.07 |
| July             | 8.2            | 141.72             | 133.49                | 2,942.98 |
| August           | 8.5            | 144.11             | 135.57                | 2,988.91 |
| January–August   | 7.9            | 137.83             | 129.97                | 2,865.27 |

<sup>1</sup>S&P Global Platts Metals Week North American price. Based on the London Metal Exchange cash price plus the North American premium.

<sup>2</sup>Average of the cash buyer price and the cash seller and settlement price.

Source: S&P Global Platts Metals Week.

TABLE 9  
LONDON METAL EXCHANGE (LME) STOCKS OF SPECIAL HIGH GRADE ZINC, END OF PERIOD

(Metric tons)

| Period    | United States |                 |         | Asia    | Europe | Other | Total LME |
|-----------|---------------|-----------------|---------|---------|--------|-------|-----------|
|           | Baltimore, MD | New Orleans, LA | Total   |         |        |       |           |
| 2020:     |               |                 |         |         |        |       |           |
| August    | 475           | 54,650          | 55,125  | 119,300 | 45,700 | --    | 220,125   |
| September | 475           | 52,950          | 53,425  | 114,575 | 44,575 | --    | 212,575   |
| October   | 475           | 54,500          | 54,975  | 124,200 | 40,025 | --    | 219,200   |
| November  | 475           | 54,500          | 54,975  | 129,700 | 35,825 | --    | 220,500   |
| December  | 475           | 54,500          | 54,975  | 113,025 | 34,075 | --    | 202,075   |
| 2021:     |               |                 |         |         |        |       |           |
| January   | 8,150         | 102,150         | 110,300 | 149,000 | 32,450 | --    | 291,750   |
| February  | 8,150         | 93,850          | 102,000 | 136,325 | 31,400 | --    | 269,725   |
| March     | 8,150         | 99,300          | 107,450 | 132,150 | 30,900 | --    | 270,500   |
| April     | 8,150         | 99,300          | 107,450 | 153,650 | 30,650 | --    | 291,750   |
| May       | 8,150         | 98,575          | 106,725 | 151,925 | 22,900 | --    | 281,550   |
| June      | 8,150         | 90,275          | 98,425  | 133,775 | 21,400 | --    | 253,600   |
| July      | 8,050         | 86,800          | 94,850  | 128,875 | 21,300 | --    | 245,025   |
| August    | 8,050         | 75,000          | 83,050  | 135,825 | 17,550 | --    | 236,425   |

-- Zero.

Source: London Metal Exchange, Ltd.