

# Mineral Industry Surveys

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## LEAD IN OCTOBER 2008

Domestic mine production (recoverable) of lead in October was estimated to be 34,000 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in October was 1,100 t, about 3% lower than that in September. Year-to-date mine production through October 2008 was about 3% lower than that of the same period of 2007. Secondary refinery production of lead increased about 9% compared with that of the previous month.

Total imports of lead for consumption through September 2008 were about 26% greater than those in the same period of 2007. The bulk of the increase was in imports of refined metal from Canada and Mexico. Canada (70%), Mexico (19%), and Peru (3%) were the principal sources of imported refined lead. Exports of lead contained in ore and concentrates in September 2008 were about 90% greater than those in the previous month owing to increases in shipments to China and Japan. Total exports of lead, exclusive of scrap, through September 2008 were essentially unchanged from those through September 2007.

According to Platts Metals Week, the average North American producer price for lead in October was \$1.03 per pound, down about 6% from that of the previous month. The London Metal Exchange (LME) cash price in October averaged \$1,479 per metric ton, down nearly 21% from that of the previous month and more than 60% lower than that in October 2007. During October 2008, global LME lead stocks declined by 15,950 t to 48,150 t.

Doe Run Resources Corp. (St. Louis, MO) announced that it had planned to temporarily close one of two blast furnaces at its primary lead smelter in Herculaneum, MO, owing to the decline in lead prices and unfavorable market conditions. Monthly production of primary refined lead at the plant was expected to decrease by about 13% to 10,500 t after the furnace was shut down in early November. The Herculaneum refinery produced about 123,000 t of primary lead in 2007 (American Metal Market, 2008).

In late October, Teck Cominco Ltd. (Vancouver, British Columbia, Canada) announced that adverse weather conditions had forced the company to end the shipping season at its Red Dog zinc-lead mine in northwestern Alaska earlier than expected. The shipping season at Red Dog typically commences in July and is restricted to about 100 days per year owing to arctic weather and sea conditions. Teck ships concentrate from the mine to its Trail metallurgical facilities in British Columbia, as well as to customers in Asia and Europe. As a result of the harsh weather this season, the last vessel left port without a full shipment of concentrate. Approximately 247,000 t of lead concentrates (136,000 t of contained metal) was shipped from Red Dog in 2008, about 2,000 t less than the company had forecast for the year (Teck Cominco Ltd., 2008).

In Canada, Blue Note Mining Inc. (Montreal, Quebec) announced that it would be placing its Caribou and Restigouche zinc-lead mines, located near Bathurst, New Brunswick, on temporary care-and-maintenance status, effective November 28, owing to recent declines in lead and zinc prices. Production at the mines had commenced in July 2007, and full commercial production levels were achieved in January 2008. Blue Note produced 14,500 t of lead concentrates at Caribou and Restigouche during the first 6 months of 2008 and had projected significant production increases for the same period in 2009 before the status change (Blue Note Mining Inc., 2008a, b).

## References Cited

- American Metal Market, 2008. Doe Run to idle Herculaneum furnace: New York, NY, American Metal Market, October 30. (Accessed October 30, 2008, via <http://www.amm.com>.)
- Blue Note Mining Inc., 2008a. Blue Note Mining reports second quarter results: Montreal, Quebec, Canada, Blue Note Mining Inc. news release, August 14, 2 p.
- Blue Note Mining Inc., 2008b. Blue Note to put Caribou and Restigouche on temporary care and maintenance: Montreal, Quebec, Canada, Blue Note Mining Inc. news release, October 17, 1 p.
- Teck Cominco Ltd., 2008. Teck announces early end of Red Dog shipping season: Vancouver, British Columbia, Canada, Teck Cominco Ltd. news release, October 29, 1 p.

TABLE 1  
SALIENT LEAD STATISTICS IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content, unless otherwise specified)

|                                                                    | 2007      |                     | 2008                 |                     |                      |
|--------------------------------------------------------------------|-----------|---------------------|----------------------|---------------------|----------------------|
|                                                                    | Year      | January-<br>October | September            | October             | January-<br>October  |
| <b>Production:</b>                                                 |           |                     |                      |                     |                      |
| Mine (recoverable)                                                 | 434,000   | 361,000             | 33,800 <sup>r</sup>  | 34,000 <sup>e</sup> | 350,000 <sup>e</sup> |
| Secondary refinery:                                                |           |                     |                      |                     |                      |
| Reported by smelters/refineries                                    | 1,170,000 | 976,000             | 89,600               | 97,900              | 974,000              |
| Estimated                                                          | 11,700    | 9,760               | 896                  | 979                 | 11,700               |
| Recovered from copper-base scrap <sup>e</sup>                      | 15,000    | 12,500              | 1,250                | 1,250               | 12,500               |
| Total secondary                                                    | 1,200,000 | 999,000             | 91,700               | 100,000             | 998,000              |
| Stocks, end of period, consumers and secondary smelters            | 63,100    | 56,500              | 52,300               | 54,900              | 54,900               |
| <b>Imports for consumption:</b>                                    |           |                     |                      |                     |                      |
| Base bullion                                                       | 1,990     | 1,410               | 405                  | NA                  | 2,390 <sup>2</sup>   |
| Refined metal                                                      | 264,000   | 219,000             | 28,100               | NA                  | 238,000 <sup>2</sup> |
| <b>Consumption:</b>                                                |           |                     |                      |                     |                      |
| Reported                                                           | 1,500,000 | 1,280,000           | 129,000              | 128,000             | 1,310,000            |
| Undistributed <sup>e</sup>                                         | 45,100    | 38,500              | 5,150 <sup>r</sup>   | 3,850               | 37,900               |
| Total                                                              | 1,550,000 | 1,320,000           | 134,000 <sup>r</sup> | 132,000             | 1,350,000            |
| <b>Exports:</b>                                                    |           |                     |                      |                     |                      |
| Ore and concentrate                                                | 300,000   | 256,000             | 60,100               | NA                  | 202,000 <sup>2</sup> |
| Bullion                                                            | 170       | 132                 | 6                    | NA                  | 560 <sup>2</sup>     |
| Wrought and unwrought lead                                         | 56,400    | 44,500              | 6,230                | NA                  | 52,300 <sup>2</sup>  |
| TEL/TML preparations, based on lead compounds                      | 2,740     | 2,610               | 240                  | NA                  | 1,910 <sup>2</sup>   |
| Exports (gross weight), scrap                                      | 129,000   | 99,000              | 14,900               | NA                  | 136,000 <sup>2</sup> |
| Platts Metals Week North American producer price (cents per pound) |           |                     |                      |                     |                      |
|                                                                    | 123.84    | 116.20              | 108.66               | 102.54              | 127.74               |

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

<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 data for January-September only; October data were not available at time of publication.

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

|              | North American<br>producer price<br>cents/lb | LME           |              | Sterling<br>exchange rate<br>dollars/£ |
|--------------|----------------------------------------------|---------------|--------------|----------------------------------------|
|              |                                              | \$/metric ton | £/metric ton |                                        |
| <b>2007:</b> |                                              |               |              |                                        |
| October      | 163.18                                       | 3,718.51      | 1,818.38     | 2.044955                               |
| December     | 160.63                                       | 2,595.28      | 1,287.31     | 2.016050                               |
| Year         | 123.84                                       | 2,579.02      | 1,288.41     | 2.001715                               |
| <b>2008:</b> |                                              |               |              |                                        |
| January      | 150.03                                       | 2,606.85      | 1,323.11     | 1.970238                               |
| February     | 146.88                                       | 3,078.82      | 1,567.15     | 1.964600                               |
| March        | 146.60                                       | 3,007.29      | 1,502.54     | 2.001467                               |
| April        | 145.91                                       | 2,821.68      | 1,423.96     | 1.981568                               |
| May          | 143.74                                       | 2,234.06      | 1,136.94     | 1.964976                               |
| June         | 115.21                                       | 1,862.33      | 947.05       | 1.966448                               |
| July         | 109.02                                       | 1,944.16      | 977.54       | 1.988827                               |
| August       | 108.84                                       | 1,922.60      | 1,019.13     | 1.886514                               |
| September    | 108.66                                       | 1,867.68      | 1,039.16     | 1.797305                               |
| October      | 102.54                                       | 1,478.94      | 876.59       | 1.687155                               |

Source: Platts Metals Week.

TABLE 3  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP<sup>1</sup>

(Metric tons, gross weight)

| Item                                | Stocks                | Net      | Consumption | Stocks              |
|-------------------------------------|-----------------------|----------|-------------|---------------------|
|                                     | September 30,<br>2008 | receipts |             | October 31,<br>2008 |
| Battery-lead                        | 26,100                | 103,000  | 104,000     | 24,900              |
| Soft lead                           | W                     | W        | W           | W                   |
| Drosses and residues                | W                     | W        | W           | W                   |
| Other <sup>2</sup>                  | 2,530                 | 8,090    | 8,170       | 2,450               |
| Total                               | 28,600                | 111,000  | 113,000     | 27,400              |
| Percent change from preceding month | XX                    | +0.4     | +6.1        | -4.3                |

W Withheld to avoid disclosing company proprietary data; included with "Other." 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 solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

TABLE 4  
LEAD, TIN, AND ANTIMONY RECOVERED FROM  
LEAD-BASE SCRAP IN OCTOBER 2008<sup>1</sup>

(Metric tons)

| Product recovered     | Secondary metal content |     |          |
|-----------------------|-------------------------|-----|----------|
|                       | Lead                    | Tin | Antimony |
| Soft and calcium lead | 55,300                  | --  | --       |
| Remelt lead           | W                       | --  | --       |
| Antimonial lead       | 10,400                  | (2) | (2)      |
| Other <sup>3</sup>    | 32,200                  | (2) | (2)      |
| Total lead-base       | 97,900                  | 140 | 293      |

W Withheld to avoid disclosing company proprietary data; included in "Other."  
-- Zero.

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

<sup>2</sup>Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>3</sup>Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5  
CONSUMPTION OF LEAD IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content)

| Use                                                                                | 2007             |                     | 2008                       |                | January-<br>October |
|------------------------------------------------------------------------------------|------------------|---------------------|----------------------------|----------------|---------------------|
|                                                                                    | Year             | January-<br>October | September                  | October        |                     |
| <b>Metal products:</b>                                                             |                  |                     |                            |                |                     |
| Ammunition, shot and bullets                                                       | 75,400           | 64,900              | 6,860                      | 6,820          | 64,900              |
| Brass and bronze, billet and ingots                                                | 3,190            | 3,470               | 323                        | 323            | 3,260               |
| Cable covering, power and communication<br>and calking lead, building construction | 8,020            | 5,810               | 466                        | 443            | 6,520               |
| Casting metals                                                                     | 29,900           | 24,900              | 2,640                      | 2,640          | 26,400              |
| Sheet lead, pipes, traps and other extruded products                               | 29,700           | 7,830               | 2,480                      | 2,240          | 23,500              |
| Solder                                                                             | 7,000            | 5,690               | 588                        | 587            | 5,870               |
| Storage batteries, including oxides                                                | 1,300,000        | 1,130,000           | 112,000                    | 112,000        | 1,150,000           |
| Terne metal, type metal, and other metal products <sup>2</sup>                     | 16,700           | 13,900              | 1,400                      | 1,400          | 14,600              |
| <b>Total metal products</b>                                                        | <b>1,470,000</b> | <b>1,260,000</b>    | <b>127,000</b>             | <b>126,000</b> | <b>1,290,000</b>    |
| Other oxides and miscellaneous                                                     | 28,000           | 23,300              | 1,960                      | 1,960          | 18,800              |
| <b>Total reported</b>                                                              | <b>1,500,000</b> | <b>1,280,000</b>    | <b>129,000</b>             | <b>128,000</b> | <b>1,310,000</b>    |
| Undistributed <sup>c</sup>                                                         | 45,100           | 38,500              | 5,150 <sup>r</sup>         | 3,850          | 37,900              |
| <b>Grand total</b>                                                                 | <b>1,550,000</b> | <b>1,320,000</b>    | <b>134,000<sup>r</sup></b> | <b>132,000</b> | <b>1,350,000</b>    |

<sup>c</sup>Estimated. <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 lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

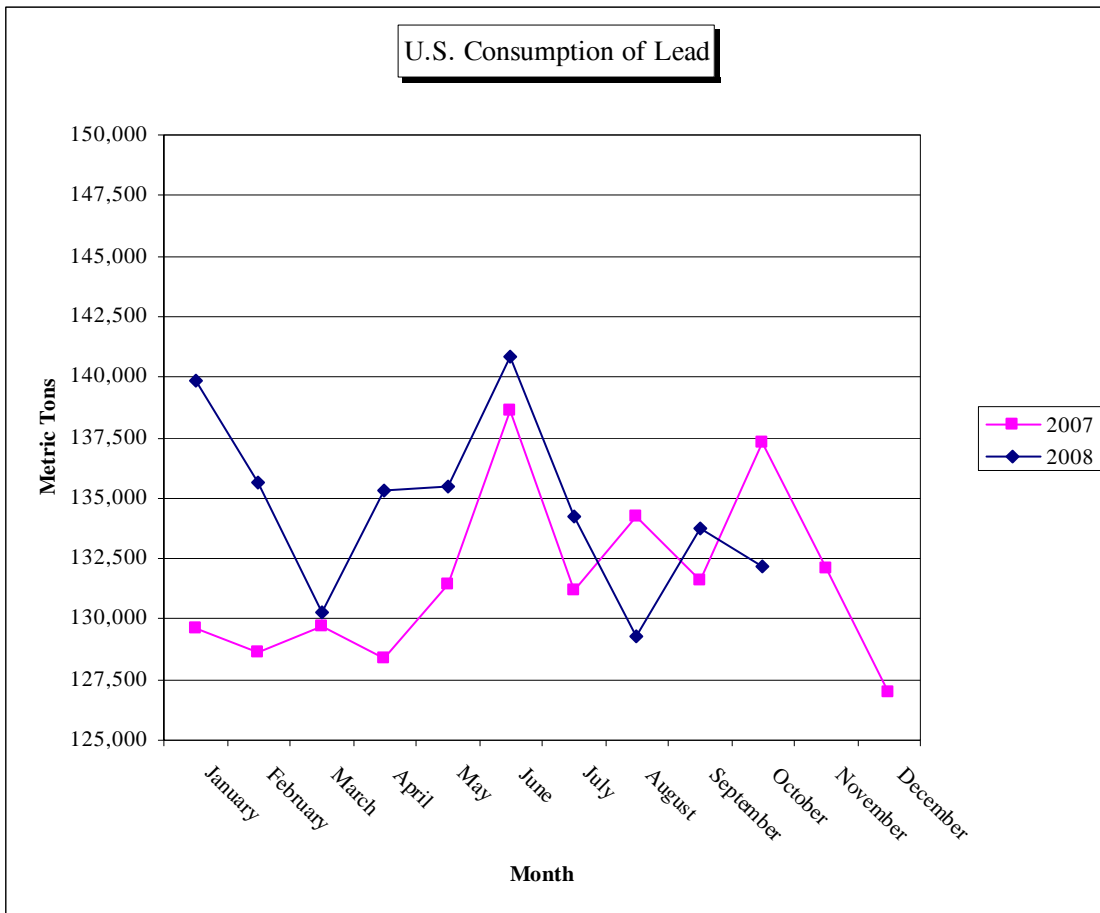


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons, lead content)

| Type of material  | Stocks             | Net receipts | Consumption | Stocks           |
|-------------------|--------------------|--------------|-------------|------------------|
|                   | September 30, 2008 |              |             | October 31, 2008 |
| Soft lead         | 29,500             | 70,400       | 70,100      | 29,800           |
| Antimonial lead   | 13,800             | 27,100       | 24,900      | 16,000           |
| Lead alloys       | W                  | W            | W           | W                |
| Copper-base scrap | W                  | W            | W           | W                |
| Total             | 52,300             | 131,000      | 128,000     | 54,900           |

W Withheld to avoid disclosing company proprietary data; included in "Total."

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

TABLE 7  
U.S. EXPORTS OF LEAD, BY CLASS<sup>1</sup>

(Metric tons)

|                                               | 2007      |         | 2008   |           |                   |
|-----------------------------------------------|-----------|---------|--------|-----------|-------------------|
|                                               | September | Year    | August | September | January-September |
| Lead content:                                 |           |         |        |           |                   |
| Ore and concentrates                          | 38,200    | 300,000 | 31,600 | 60,100    | 202,000           |
| Bullion                                       | 26        | 170     | 49     | 6         | 560               |
| Materials excluding scrap                     | 5,720     | 56,400  | 6,760  | 6,230     | 52,300            |
| TEL/TML preparations, based on lead compounds | 56        | 2,740   | 154    | 240       | 1,910             |
| Total                                         | 44,000    | 359,000 | 38,500 | 66,600    | 257,000           |
| Gross weight: Scrap                           | 11,500    | 129,000 | 13,300 | 14,900    | 136,000           |

<sup>1</sup>Data are rounded to more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN<sup>1</sup>

(Metric tons, lead content)

| Country of origin        | General imports |                   |        |           |                   | Imports for consumption |                   |        |           |                   |
|--------------------------|-----------------|-------------------|--------|-----------|-------------------|-------------------------|-------------------|--------|-----------|-------------------|
|                          | 2007            |                   | 2008   |           |                   | 2007                    |                   | 2008   |           |                   |
|                          | Year            | January-September | August | September | January-September | Year                    | January-September | August | September | January-September |
| <b>Ore, matte, etc.:</b> |                 |                   |        |           |                   |                         |                   |        |           |                   |
| Canada                   | --              | --                | --     | --        | 41                | --                      | --                | --     | --        | 41                |
| Mexico                   | --              | --                | --     | 98        | 451               | --                      | --                | --     | 98        | 451               |
| Total                    | --              | --                | --     | 98        | 492               | --                      | --                | --     | 98        | 492               |
| <b>Base bullion:</b>     |                 |                   |        |           |                   |                         |                   |        |           |                   |
| Colombia                 | 1,860           | --                | --     | --        | --                | 1,860                   | --                | --     | --        | --                |
| Mexico                   | --              | --                | 60     | 346       | 1,690             | --                      | --                | 60     | 346       | 1,690             |
| Other                    | 127             | 1,260             | --     | 58        | 694               | 127                     | 1,260             | --     | 58        | 694               |
| Total                    | 1,990           | 1,260             | 60     | 405       | 2,390             | 1,990                   | 1,260             | 60     | 405       | 2,390             |
| <b>Pigs and bars:</b>    |                 |                   |        |           |                   |                         |                   |        |           |                   |
| Canada                   | 208,000         | 154,000           | 15,600 | 18,700    | 168,000           | 208,000                 | 154,000           | 15,600 | 18,700    | 168,000           |
| Mexico                   | 35,600          | 22,100            | 3,840  | 5,330     | 44,300            | 35,600                  | 22,100            | 3,840  | 5,330     | 44,300            |
| Peru                     | 16,500          | 13,500            | 1,020  | 873       | 7,970             | 16,500                  | 13,500            | 1,020  | 873       | 7,970             |
| Other                    | 3,860           | 602               | 2,430  | 3,230     | 18,200            | 3,860                   | 602               | 2,430  | 3,230     | 18,200            |
| Total                    | 264,000         | 190,000           | 22,900 | 28,100    | 238,000           | 264,000                 | 190,000           | 22,900 | 28,100    | 238,000           |
| Grand total              | 266,000         | 192,000           | 23,000 | 28,600    | 241,000           | 266,000                 | 192,000           | 23,000 | 28,600    | 241,000           |

-- Zero.

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

Source: U.S. Census Bureau.