

# Mineral Industry Surveys

**For information, contact:**

Kateryna Klochko, Lead Commodity Specialist  
 National Minerals Information Center  
 U.S. Geological Survey  
 989 National Center  
 Reston, VA 20192  
 Telephone: (703) 648-4977, Fax: (703) 648-7757  
 Email: [kklochko@usgs.gov](mailto:kklochko@usgs.gov)

Christine Pisut (Data)  
 Telephone: (703) 648-7942  
 Fax: (703) 648-7975  
 Email: [cpisut@usgs.gov](mailto:cpisut@usgs.gov)

**Internet:** <http://www.usgs.gov/centers/nmic>

## LEAD IN OCTOBER 2020

Domestic mine production (recoverable) of lead in October 2020 was 24,000 metric tons (t). Average daily mine production in October 2020 was 773 t, slightly less than that in the previous month and 41% more than that in October 2019. Total secondary refined lead production in October 2020 was 97,800 t, slightly more than that in the previous month and slightly less than that in October 2019 (fig. 1; tables 1, 2).

5% less than that in the previous month and 17% less than that in October 2019.

The North American premium to the LME cash price in October 2020 averaged 9.1 cents per pound, slightly more than that in September 2020 and slightly less than that in October 2019 (fig. 2, table 3).

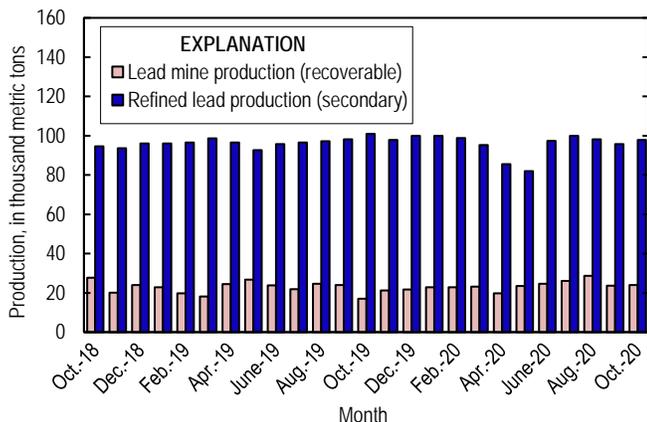


Figure 1. U.S. production of lead from October 2018 through October 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through October 2020 were 218,000 t, essentially unchanged from those for the same period in 2019. The main destinations in October 2020 were the Netherlands (55%), China (31%), and Canada (14%) (table 8).

### Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in October 2020 was 80.6 cents per pound, 6% less than that in the previous month and 19% less than that in October 2019 (table 3). The Platts Metals Week average North American Market price for lead in October 2020 was 89.7 cents per pound,

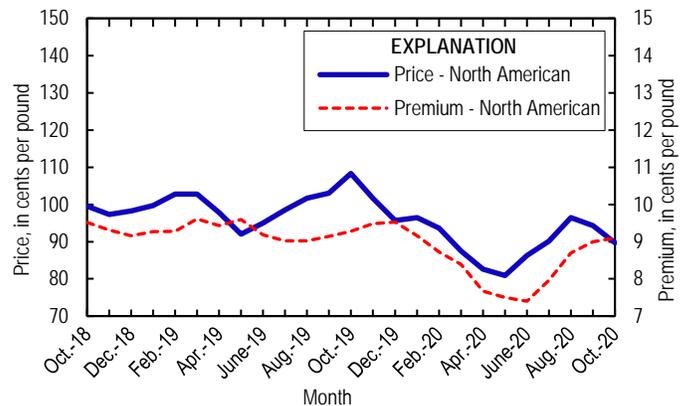


Figure 2. Average monthly North American price and premium for refined lead metal from October 2018 through October 2020. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in October 2020 was 31.5 cents per pound, 7% less than that in September 2020 and 10% less than that in October 2019 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of October 2020 were 124,400 t, 9% less than those at the end of September 2020 and nearly double those at the end of October 2019 (table 11).

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <https://www.usgs.gov/centers/nmic/minerals-information->

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

(Metric tons, lead content, unless otherwise specified)

	2019 <sup>2</sup>		2020		
	January– December	January– October	September	October	January– October
<b>Production:</b>					
Mine (recoverable)	266,000	223,000	23,700	24,000	239,000
Secondary refinery, reported by smelters/refineries	1,170,000	969,000	95,800	97,800	951,000
Consumption of refined lead, apparent <sup>e, 3</sup>	1,640,000	1,380,000	119,000	146,000	1,270,000
<b>Imports for consumption:</b>					
Ore and concentrate	8	8	--	--	(4)
Bullion	75	75	96	--	313
Unwrought	501,000	432,000	24,300	49,300	330,000
<b>Exports:</b>					
Ore and concentrate	259,000	218,000	48,100	14,100	218,000
Bullion (gross weight)	1,230	881	52	297	1,570
Unwrought (gross weight)	25,500	23,200	1,420	1,260	13,700
Platts Metals Week North American Market price (cents per pound)	99.91	100.16	94.34	89.71	89.81

<sup>e</sup>Estimated. -- Zero.

<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>Secondary refinery production plus imports for consumption of unwrought lead minus domestic exports of unwrought lead.

<sup>4</sup>Less than ½ unit.

TABLE 2  
MINE AND SECONDARY REFINERY PRODUCTION OF LEAD  
IN THE UNITED STATES<sup>1</sup>

(Metric tons)

Period	Mine		Secondary refinery <sup>c</sup>
	Lead in concentrate	Recoverable	
2019:			
October	17,400	17,000	101,000
November	21,900	21,300	97,800
December	22,300	21,700	100,000
January–December	274,000	266,000	1,170,000
2020:			
January	23,500	22,800	100,000
February	23,500	22,900	98,800
March	23,700	23,100	95,300
April	20,300	19,800	85,500
May	24,200	23,500	82,000
June	25,300	24,600	97,500
July	26,900	26,100	99,700
August	29,600	28,700	98,100
September	23,100	23,700	95,800
October	24,600	24,000	97,800
January–October	245,000	239,000	951,000

<sup>c</sup>Estimated.

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

TABLE 3  
MONTHLY AVERAGE LEAD PRICES

	North	London Metal Exchange		Used lead-acid
	American Market <sup>1</sup>	cash		batteries <sup>2</sup>
	¢/lb	¢/lb	\$/t	¢/lb
2019:				
October	108.33	99.05	2,183.67	34.95
November	101.63	92.15	2,031.46	35.47
December	95.65	86.12	1,898.68	35.85
January–December	99.91	90.59	1,997.13	33.12
2020:				
January	96.46	87.30	1,924.69	36.75
February	93.63	84.90	1,871.75	36.44
March	87.50	79.11	1,744.14	34.78
April	82.59	74.91	1,651.53	32.50
May	80.90	73.40	1,618.16	32.25
June	86.32	78.92	1,739.86	32.00
July	90.16	82.20	1,812.15	32.50
August	96.48	87.78	1,935.20	33.16
September	94.34	85.34	1,881.36	33.98
October	89.71	80.61	1,777.07	31.50
January–October	89.81	81.45	1,795.59	33.58

<sup>1</sup>Platts Metals Week North American Market price. Reflects the LME lead cash price plus the Platts premium for 99.97% lead.

<sup>2</sup>Platts Metals Week assessment for used lead-acid automotive batteries (50% lead) picked up in U.S. Midwest, suitable for delivery to secondary smelters within 30 days.

Source: Platts Metals Week.

TABLE 4  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN OCTOBER 2020<sup>1</sup>

(Metric tons, gross weight)

Item	Stocks September 30, 2020	Net receipts	Consumption	Stocks October 31, 2020
Battery-lead	W	76,900	76,500	W
Other <sup>2</sup>	W	5,870	5,850	W
Total	7,910 <sup>r</sup>	82,800	82,300	8,380
Percent change from preceding month <sup>3</sup>	XX	1.0	1.6	6.1

W Withheld to avoid disclosing company proprietary data; included in "Total." 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 soft lead, solder, drosses and residues, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

<sup>3</sup>Based on unrounded data; preceding monthly data may have been revised.

TABLE 5  
LEAD, TIN, AND ANTIMONY RECOVERED FROM  
LEAD-BASE SCRAP IN OCTOBER 2020<sup>1</sup>

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	80,200	--	--
Remelt lead	W	--	--
Antimonial lead	15,600	W	W
Other <sup>2</sup>	W	W	--
Total lead-base	97,800	186	W

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

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

<sup>2</sup>Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6  
U.S. APPARENT CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons)

Period	Production	Imports <sup>2,3</sup>	Exports <sup>2,3</sup>	Apparent consumption <sup>4</sup>
2019: <sup>P</sup>				
October	101,000	35,500	2,360	134,000
November	97,800	28,700	1,460	125,000
December	100,000	40,200	805	140,000
January–December	1,170,000	501,000	25,500	1,640,000
2020:				
January	100,000	42,000	1,580	141,000
February	98,800	26,400	1,290	124,000
March	95,300	33,400	1,460	127,000
April	85,500	41,100	1,290	125,000
May	82,000	27,300	909	108,000
June	97,500	34,800	1,370	131,000
July	99,700	27,400	1,700	125,000
August	98,100	23,900	1,430	121,000
September	95,800	24,300	1,420	119,000
October	97,800	49,300	1,260	146,000
January–October	951,000	330,000	13,700	1,270,000

<sup>P</sup>Preliminary.

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

<sup>2</sup>Import and export data are for Harmonized Tariff Schedule of the United States (HTS) codes 7801.10.0000, 7801.91.0000, 7801.99.9030, 7801.99.9050.

<sup>3</sup>Source: U.S. Census Bureau.

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

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

(Metric tons, gross weight, unless otherwise specified)

Class	2019 <sup>2</sup>		2020		
	January– December	January– October	September	October	January– October
Ores and concentrate (lead content)	259,000	218,000	48,100	14,100	218,000
Bullion	1,230	881	52	297	1,570
Unwrought:					
Refined lead	9,450	9,420	121	20	522
Refined lead containing antimony as the principal alloying element	651	572	86	22	455
Lead alloys	13,700	11,800	1,190	1,180	11,800
Other	1,620	1,430	18	46	946
Total	25,500	23,200	1,420	1,260	13,700
Wrought:					
Bars, rods, profiles, and wire	615	501	33	24	423
Pipes and tubes, including fittings	167	107	40	12	87
Plates, sheets, strip, foil	3,460	2,960	290	256	2,010
Other	2,360	1,770	283	128	2,030
Total	6,600	5,340	647	420	4,550
Powders and flakes	297	285	15	2	150
Tetraethyl lead and tetramethyl lead	507	466	6	8	132
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	23,000,000	2,720,000	2,670,000	22,400,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,100	32,900	4,180	3,780	41,000

-- Zero.

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

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

Source: U.S. Census Bureau.

TABLE 8  
U.S. EXPORTS OF LEAD ORES AND CONCENTRATES, BY COUNTRY OR LOCALITY<sup>1</sup>

(Metric tons, lead content)

Country or locality	2019 <sup>2</sup>		2020		
	January– December	January– October	September	October	January– October
Australia	--	--	--	--	15,700
Canada	52,400	43,200	7,570	1,960	21,200
China	62,300	59,200	24,500	4,420	62,800
Dominican Republic	34	29	--	--	4
Germany	--	--	--	--	8,060
Indonesia	5	--	--	--	--
Italy	23,400	23,400	--	--	16,000
Japan	25,100	23,600	5,510	--	15,100
Korea, Republic of	51,300	42,100	10,600	--	42,500
Laos	11	11	--	--	--
Mexico	24,700	16,600	--	23	8,190
Netherlands	15,000	9,320	--	7,690	27,200
Thailand	3,390	750	--	--	1,190
Vietnam	1,760	53	--	--	30
Total	259,000	218,000	48,100	14,100	218,000

-- 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.

Source: U.S. Census Bureau.

TABLE 9  
U.S. IMPORTS FOR CONSUMPTION OF LEAD, BY CLASS<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

Class	2019 <sup>2</sup>		2020		
	January– December	January– October	September	October	January– October
Ores and concentrate (lead content)	8	8	--	--	(3)
Bullion (lead content)	75	75	96	--	313
<b>Unwrought:</b>					
Refined lead	406,000	351,000	18,300	42,600	274,000
Refined lead containing antimony as the principal alloying element (lead content)	27,000	22,500	2,210	2,890	18,300
Lead alloys (lead content)	23,200	20,000	1,430	2,140	14,500
Other (lead content)	44,000	38,100	2,370	1,630	22,700
<b>Total</b>	<b>501,000</b>	<b>432,000</b>	<b>24,300</b>	<b>49,300</b>	<b>330,000</b>
<b>Wrought:</b>					
Bars, rods, profiles, and wire	3,420	1,980	245	559	3,710
Pipes and tubes, including fittings	77	71	5	1	96
Plates, sheets, strip, foil	1,760	1,450	37	35	1,170
Other	2,770	2,340	159	192	1,660
<b>Total</b>	<b>8,020</b>	<b>5,840</b>	<b>446</b>	<b>787</b>	<b>6,640</b>
Powders and flakes	315	266	--	51	183
Tetraethyl lead and tetramethyl lead	139	113	(3)	12	256
<b>Waste and scrap:</b>					
Spent lead-acid storage batteries for starting engines (units)	528,000	399,000	96,900	110,000	4,060,000 <sup>4</sup>
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	1,610	203	229	1,650
Other lead waste and scrap (lead content)	2,100	1,540	217	292	1,820

-- Zero.

<sup>1</sup>Data are rounded to 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.

<sup>4</sup>Referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 10  
U.S. IMPORTS FOR CONSUMPTION OF UNWROUGHT LEAD, BY COUNTRY OR LOCALITY<sup>1</sup>

(Metric tons, lead content)

Material and country or locality of origin	2019 <sup>2</sup>		2020		
	January– December	January– October	September	October	January– October
<b>Refined lead:</b>					
Argentina	4,300	3,550	--	--	1,800
Australia	--	--	--	2,020	11,200
Brazil	9,920	6,310	1,050	928	15,200
Burma	1,500	1,400	200	100	650
Canada	159,000	132,000	9,870	9,290	93,200
China	101	101	--	--	--
Colombia	801	801	--	--	900
Dominican Republic	50	50	26	26	78
Ecuador	19,800	16,300	400	500	6,580
Germany	50	50	--	--	--
Ghana	--	--	--	--	421
Hong Kong	100	100	--	--	--
India	4,090	3,540	--	--	3,760
Indonesia	--	--	--	--	76
Israel	2,200	2,110	192	589	2,050
Japan	--	--	--	--	299
Kazakhstan	17,800	17,100	--	6,510	13,200
Korea, Republic of	76,000	73,500	--	15,400	48,800
Mexico	96,700	83,500	5,150	5,830	56,300
Nigeria	994	397	999	355	5,910
Panama	400	400	--	--	--
Peru	3,030	2,150	200	--	1,600
Russia	6,070	4,570	--	1,070	11,200
South Africa	20	20	--	--	--
Sri Lanka	--	--	--	--	200
Thailand	1,250	1,160	--	--	192
United Kingdom	404	307	--	--	491
Venezuela	2,080	1,480	221	--	245
<b>Total</b>	<b>406,000</b>	<b>351,000</b>	<b>18,300</b>	<b>42,600</b>	<b>274,000</b>
<b>Other unwrought lead:<sup>3</sup></b>					
Argentina	2,080	1,690	--	--	--
Bolivia	183	183	--	--	--
Brazil	276	127	--	--	208
Canada	86,800	74,200	5,470	5,960	51,100
China	2	2	--	--	299
Costa Rica	19	19	--	--	--
Denmark	--	--	--	--	(4)
Dominican Republic	--	--	304	303	914
Ecuador	378	334	45	--	318
France	--	--	--	--	30
Germany	1	1	--	--	--
Ghana	--	--	--	--	198
India	321	167	68	284	576
Korea, Republic of	14	14	--	--	10
Mexico	2,700	2,480	92	33	1,120
Paraguay	49	--	--	--	--
Peru	221	221	--	--	--
Russia	(4)	(4)	--	--	--
Sweden	11	11	--	--	--
Taiwan	(4)	(4)	--	--	--

See footnotes at end of table.

TABLE 10—Continued  
U.S. IMPORTS FOR CONSUMPTION OF UNWROUGHT LEAD, BY COUNTRY OR LOCALITY<sup>1</sup>

(Metric tons, lead content)

Material and country or locality of origin	2019 <sup>2</sup>		2020		
	January– December	January– October	September	October	January– October
Other unwrought lead—Continued: <sup>3</sup>					
United Kingdom	1,040	1,040	--	46	501
Venezuela	185	81	27	27	186
Total	94,300	80,600	6,010	6,660	55,400
Grand total	501,000	432,000	24,300	49,300	330,000

-- 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>Includes the lead content (Quantity 2) of Harmonized Tariff Schedule of the United States (HTS) codes 7801.91.0000, 7801.99.9030, 7801.99.9050. Excludes bullion.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 11  
LONDON METAL EXCHANGE (LME) STOCKS OF LEAD, END OF PERIOD

(Metric tons)

Period	United States	Asia	Europe	Total
2019:				
October	--	27,400	42,675	70,075
November	--	26,250	40,875	67,125
December	--	26,050	40,150	66,200
2020:				
January	--	26,000	40,800	66,800
February	--	25,750	42,350	68,100
March	--	26,250	44,650	70,900
April	3,725	26,100	43,825	73,650
May	5,875	25,625	44,325	75,825
June	5,875	24,625	36,000	66,500
July	7,725	28,450	81,975	118,150
August	7,250	33,775	83,875	124,900
September	6,825	34,350	95,825	137,000
October	6,325	33,600	84,475	124,400

-- Zero.

Source: London Metal Exchange, Ltd.