

Mineral Industry Surveys

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LEAD IN JULY 2019

Domestic mine production (recoverable) of lead in July was 21,900 metric tons (t). Average daily mine production in July was 705 t, 11% less than that in the previous month and 8% less than that in July 2018. Total secondary refined lead production in July was 94,500 t, essentially unchanged from that in the previous month and slightly less than that in July 2018 (fig. 1; tables 1, 2).

3). The Platts Metals Week average North American Market price for lead in July 2019 was 98.5 cents per pound, 4% more than that in the previous month and 10% less than that in July 2018. The North American premium to the LME cash price in July 2019 averaged about 9.02 cents per pound, slightly less than that in June 2019 and essentially unchanged from that in July 2018 (fig. 2, table 3).

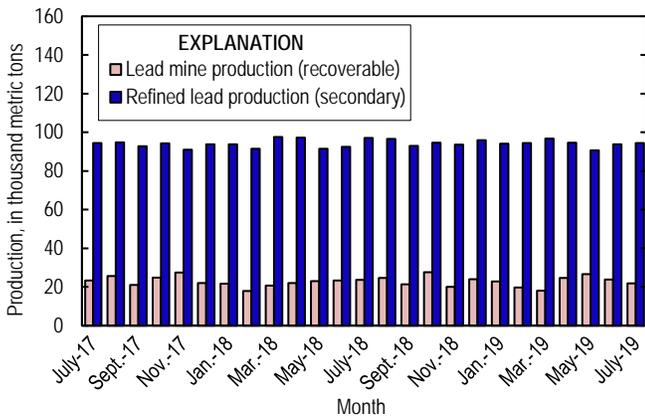


Figure 1. U.S. production of lead from July 2017 through July 2019. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates for the year through July were 113,000 t, 15% less than that for the same period in 2018. Leading destinations were Canada (26%), the Republic of Korea (23%), Mexico (15%), Italy (14%), and China (13%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in July was 89.5 cents per pound, 4% more than that in the previous month and 11% less than that in July 2018 (table

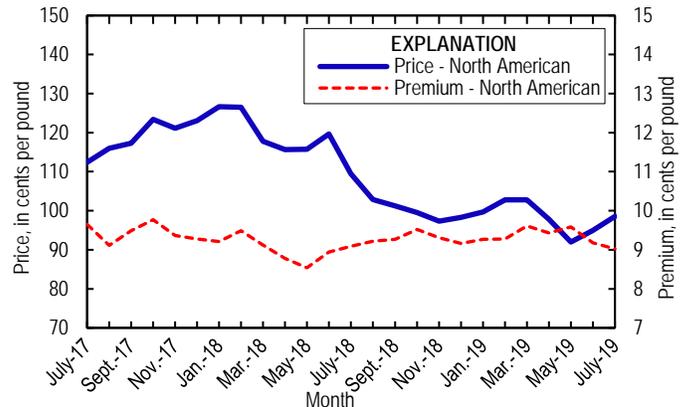


Figure 2. Average monthly North American price and premium for refined lead metal from July 2017 through July 2019. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in July 2019 was 33.7 cents per pound, 7% more than that in June and 19% less than that in July 2018 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of July 2019 were 78,500 t, 19% more than those at the end of June 2019 and 38% less than those at the end of July 2018 (table 11).

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TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2018 ²		2019		
	January– December	January– July	June	July	January– July
Production:					
Mine (recoverable)	271,000	153,000	23,800 ^r	21,900	158,000
Secondary refinery, reported by smelters/refineries	1,140,000	662,000	93,800	94,500	659,000
Consumption of refined lead, apparent ^{e,3}	1,630,000	987,000	133,000	125,000	933,000
Imports for consumption:					
Ore and concentrate	--	--	--	--	--
Bullion	789	223	--	--	75
Unwrought	563,000	342,000	41,400	32,000	293,000
Exports:					
Ore and concentrate	251,000	133,000	11,800	31,600	113,000
Bullion (gross weight)	2,060	1,300	158	213	456
Unwrought (gross weight)	67,200	17,200	1,860	1,770	18,600
Platts Metals Week North American Market					
price (cents per pound)	110.89	118.79	94.96	98.54	98.36

^eEstimated. ^rRevised. -- Zero.

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

²May include revisions to previously published data.

³Smelter production plus imports for consumption minus domestic exports.

TABLE 2
MINE AND SECONDARY REFINERY PRODUCTION OF LEAD
IN THE UNITED STATES¹

(Metric tons)

Period	Mine		Secondary refinery ^c
	Lead in concentrate	Recoverable	
2018:			
July	24,300	23,700	97,000
August	25,300	24,600	96,600
September	23,300	21,300	92,900
October	28,500	27,700	94,600
November	20,600	20,100	93,600
December	24,700	24,000	96,000
January–December	280,000	271,000	1,140,000
2019:			
January	23,500	22,800	94,100
February	20,300	19,800	94,500
March	18,600	18,100	96,700
April	25,200	24,500	94,600
May	27,400	26,700	90,600
June	24,400	23,800 ^f	93,800
July	22,500	21,900	94,500
January–July	162,000	158,000	659,000

^cEstimated. ^fRevised.

¹Data 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 ¹	cash		batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2018:				
July	109.44	100.35	2,212.39	41.60
August	102.85	93.64	2,064.34	37.03
September	101.25	91.98	2,027.78	34.38
October	99.53	90.02	1,984.58	33.00
November	97.29	87.98	1,939.65	31.25
December	98.29	89.13	1,965.07	30.63
January–December	110.89	101.76	2,243.35	39.10
2019:				
January	99.70	90.43	1,993.73	30.95
February	102.78	93.51	2,061.45	29.94
March	102.78	93.17	2,054.14	31.34
April	97.80	88.37	1,948.26	33.65
May	91.99	82.40	1,816.64	32.25
June	94.96	85.78	1,891.04	31.38
July	98.54	89.52	1,973.50	33.65
January–July	98.36	89.03	1,962.68	31.88

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

²Platts 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 JULY 2019¹

(Metric tons, gross weight)

Item	Stocks June 30, 2019	Net receipts	Consumption	Stocks July 31, 2019
Battery-lead	W	75,300	75,100	W
Other ²	W	15,100	15,200	W
Total	33,300	90,400	90,300	33,400
Percent change from preceding month ³	XX	18	4.4	0.3

W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

²Includes soft lead, solder, drosses and residues, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

³Based on unrounded data; preceding monthly data may have been revised.

TABLE 5
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN JULY 2019¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	80,200	--	--
Remelt lead	W	--	--
Antimonial lead	13,800	W	W
Other ²	W	W	--
Total lead-base	94,500	188	W

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

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

²Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6
U.S. APPARENT CONSUMPTION OF LEAD¹

(Metric tons)

Period	Production	Imports ^{2,3}	Exports ^{2,3}	Apparent consumption ⁴
2018: ^P				
July	97,000	33,600	3,460	127,000
August	96,600	39,300	4,640	131,000
September	92,900	58,700	12,600	139,000
October	94,600	38,500	12,300	121,000
November	93,600	46,100	14,000	126,000
December	96,000	38,000	6,360	128,000
January–December	1,140,000	563,000	67,200	1,630,000
2019:				
January	94,100	54,000	9,490	139,000
February	94,500	37,200	1,380	130,000
March	96,700	38,100	1,820	133,000
April	94,600	55,100	918	149,000
May	90,600	34,900	1,320	124,000
June	93,800	41,400	1,860	133,000
July	94,500	32,000	1,770	125,000
January–July	659,000	293,000	18,600	933,000

^PPreliminary.

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

²Import 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.

³Source: U.S. Census Bureau.

⁴Smelter production plus imports for consumption minus domestic exports.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons, gross weight, unless otherwise specified)

	2018 ²		2019		
	January– December	January– July	June	July	January– July
Ores and concentrate (lead content):	251,000	133,000	11,800	31,600	113,000
Bullion	2,060	1,300	158	213	456
Unwrought:					
Refined lead	49,300	6,420	134	609	9,480
Refined lead containing antimony as the principal alloying element	654	529	73	49	383
Lead alloys	14,400	8,850	1,570	1,090	7,520
Other	2,850	1,440	79	25	1,180
Total	67,200	17,200	1,860	1,770	18,600
Wrought:					
Bars, rods, profiles, and wire	886	566	68	21	364
Pipes and tubes, including fittings	116	55	1	--	38
Plates, sheets, strip, foil	3,180	2,090	336	172	2,190
Other	1,770	1,050	100	204	917
Total	5,960	3,760	505	397	3,510
Powders and flakes	372	188	27	21	196
Tetraethyl lead and tetramethyl lead	502	277	32	21	400
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	26,800,000	16,800,000	2,250,000	2,390,000	15,500,000
Lead waste and scrap obtained from lead-acid storage batteries	9,200	7,800	--	--	--
Other lead waste and scrap	40,300	23,900	3,040	2,200	23,100

--Zero.

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

²May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 8
U.S. EXPORTS OF LEAD ORES AND CONCENTRATES, BY COUNTRY OR LOCALITY¹

(Metric tons, lead content)

	2018 ²		2019		
	January– December	January– July	June	July	January– July
Australia	7,310	--	--	--	--
Canada	51,200	24,800	1,020	1,160	29,500
China	73,600	46,100	--	7,320	14,600
Dominican Republic	--	--	--	--	29
Germany	15,100	7,200	--	--	--
Italy	7,170	7,170	--	8,100	15,500
Japan	19,100	5,160	5,420	--	5,590
Korea, Republic of	48,700	14,100	3,840	7,060	25,800
Laos	--	--	--	--	11
Mexico	19,100	18,400	37	7,980	16,400
Netherlands	7,100	7,100	1,430	--	5,340
Saudi Arabia	27	27	--	--	--
Thailand	2,520	2,520	--	--	--
Vietnam	--	--	4	14	32
Total	251,000	133,000	11,800	31,600	113,000

-- Zero.

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

²May include revisions to previously published data.

Source: U.S. Census Bureau.

TABLE 9
U.S. IMPORTS FOR CONSUMPTION OF LEAD, BY CLASS¹

(Metric tons, gross weight, unless otherwise specified)

	2018 ²		2019		
	January– December	January– July	June	July	January– July
Ores and concentrate (lead content):	--	--	--	--	8
Bullion (lead content)	789	223	--	--	75
Unwrought:					
Refined lead	448,000	278,000	33,900	25,700	238,000
Refined lead containing antimony as the principal alloying element (lead content)	45,200	26,800	1,930	1,730	15,700
Lead alloys (lead content)	18,600	9,970	2,630	1,860	11,500
Other (lead content)	50,800	27,500	2,900	2,650	27,000
Total	563,000	342,000	41,400	32,000	293,000
Wrought:					
Bars, rods, profiles, and wire	1,020	547	389	214	1,400
Pipes and tubes, including fittings	29	4	(3)	--	70
Plates, sheets, strip, foil	1,740	931	131	146	1,060
Other	4,090	2,140	142	172	1,840
Total	6,890	3,620	662	531	4,370
Powders and flakes	203	131	23	19	192
Tetraethyl lead and tetramethyl lead	716	514	14	13	75
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	1,050,000	377,000	28,600	38,400	309,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	1,660	945	208	136	1,100
Other lead waste and scrap (lead content)	2,450	1,470	104	265	1,120

-- Zero.

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

²May include revisions to previously published data.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF UNWROUGHT LEAD, BY
COUNTRY OR LOCALITY¹

(Metric tons, lead content)

Material and country or locality of origin	2018 ²		2019		
	January– December	January– July	June	July	January– July
Refined lead:					
Argentina	6,050	3,540	301	176	2,590
Australia	2,780	--	--	--	--
Brazil	15,500	9,010	503	200	3,710
Burma	100	100	--	100	500
Canada	148,000	84,800	12,400	12,900	94,300
Chile	100	100	--	--	--
China	--	--	--	--	1
Colombia	491	491	--	--	801
Dominican Republic	250	200	--	--	50
Ecuador	10,900	6,510	1,500	2,020	12,900
Germany	--	--	--	--	50
Honduras	199	199	--	--	--
Hong Kong	--	--	--	100	100
India	23,200	20,800	177	--	3,320
Israel	1,820	1,510	200	295	1,650
Kazakhstan	5,130	2,860	8,500	293	10,700
Korea, Republic of	106,000	64,000	1,000	--	40,800
Mexico	107,000	67,200	8,350	7,580	60,600
Nigeria	47	--	149	200	349
Panama	125	125	--	--	--
Peru	3,350	1,950	--	--	1,350
Russia	6,460	6,460	779	1,910	2,690
South Africa	174	174	--	--	20
Sri Lanka	625	625	--	--	--
Thailand	7,500	5,640	--	--	1,160
United Kingdom	485	191	--	--	196
Venezuela	2,460	1,520	25	--	554
Total	448,000	278,000	33,900	25,700	238,000
Other unwrought lead:³					
Argentina	1,920	1,920	198	128	1,390
Bolivia	--	--	--	124	124
Canada	93,100	51,300	6,530	5,350	49,100
Chile	1,780	1,780	--	--	--
Colombia	1,040	431	--	--	--
Costa Rica	4,470	1,900	--	--	19
Ecuador	125	--	67	89	334
Honduras	2,490	2,490	--	--	--
India	93	--	--	18	130
Korea, Republic of	--	--	2	--	5
Mexico	8,150	3,250	122	197	2,150
Panama	199	199	--	--	--
Peru	50	50	--	--	--
Russia	209	153	--	--	(4)
South Africa	95	95	--	--	--
Taiwan	--	--	(4)	--	(4)
United Kingdom	--	--	540	343	946
Venezuela	885	722	--	--	54
Total	115,000	64,300	7,460	6,250	54,200
Grand total	563,000	342,000	41,400	32,000	293,000

-- Zero.

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

²May include revisions to previously published data.

³Includes 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.

⁴Less 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
2018:				
July	--	35,000	92,000	127,000
August	--	33,600	89,300	123,000
September	--	27,200	88,500	116,000
October	--	23,600	90,000	114,000
November	--	21,100	84,100	105,000
December	--	20,700	86,700	107,000
2019:				
January	--	19,300	53,200	72,500
February	--	22,600	54,300	76,900
March	--	22,200	56,500	78,800
April	--	22,100	52,400	74,400
May	--	20,600	48,800	69,400
June	--	19,100	46,700	65,800
July	--	27,900	50,700	78,500

-- Zero.

Source: London Metal Exchange, Ltd.