

Mineral Industry Surveys

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LEAD IN JULY 2020

Domestic mine production (recoverable) of lead in July 2020 was 26,100 metric tons (t). Average daily mine production in July 2020 was 843 t, 3% more than that in the previous month and 19% more than that in July 2019. Total secondary refined lead production in July 2020 was 100,000 t, slightly more than that in the previous month and 4% more than that in July 2019 (fig. 1; tables 1, 2).

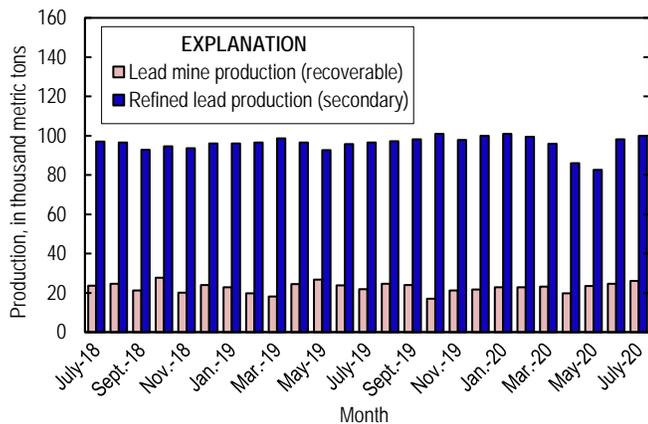


Figure 1. U.S. production of lead from July 2018 through July 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through July 2020 were 118,000 t, 5% more than those for the same period in 2019. The major destinations in July 2020 were China (33%), Mexico (25%), Japan (17%), and Republic of Korea (17%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in July 2020 was 82.2 cents per pound, 4% more than that in the previous month and 8% less than that in July 2019 (table 3). The Platts Metals Week average North American

Market price for lead in July 2020 was 90.2 cents per pound, 4% more than that in the previous month and 9% less than that in July 2019.

The North American premium to the LME cash price in July 2020 averaged 7.96 cents per pound, 8% more than that in June 2020 and 12% less than that in July 2019 (fig. 2, table 3).

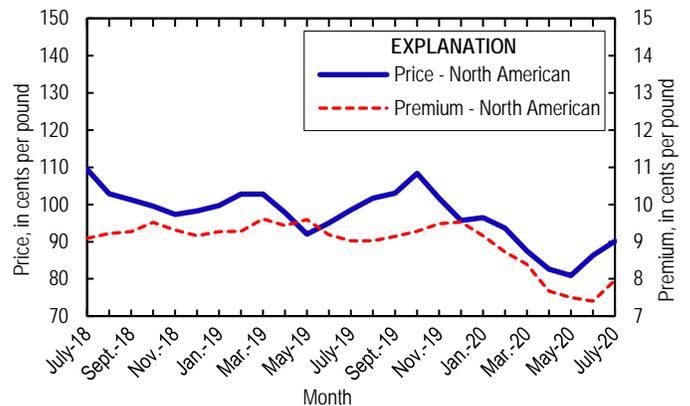


Figure 2. Average monthly North American price and premium for refined lead metal from July 2018 through July 2020. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in July 2020 was 32.5 cents per pound, slightly more than that in June 2020 and 3% less than that in July 2019 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of July 2020 were 118,150 t, 78% more than those at the end of June 2020 and 51% more than those at the end of July 2019 (table 11).

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TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2019 ²		2020		
	January– December	January– July	June	July	January– July
Production:					
Mine (recoverable)	266,000	158,000	24,600	26,100	163,000
Secondary refinery, reported by smelters/refineries	1,170,000	673,000	98,100	100,000	663,000
Consumption of refined lead, apparent ^{e, 3}	1,640,000	947,000	132,000	126,000	886,000
Imports for consumption:					
Ore and concentrate	8	8	--	--	(4)
Bullion	75	75	--	--	217
Unwrought	501,000	293,000	34,800	27,400	232,000
Exports:					
Ore and concentrate	259,000	113,000	11,600	32,100	118,000
Bullion (gross weight)	1,230	456	223	161	1,030
Unwrought (gross weight)	25,500	18,400	1,370	1,700	9,600
Platts Metals Week North American Market price (cents per pound)	99.91	98.36	86.32	90.16	88.22

^eEstimated. -- 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.

⁴Less than ½ unit.

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

(Metric tons)

Period	Mine		Secondary refinery ^c
	Lead in concentrate	Recoverable	
2019:			
July	22,600	21,900	96,600
August	25,300	24,600	97,200
September	24,700	24,000	98,200
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	101,000
February	23,500	22,900	99,500
March	23,700	23,100	95,900
April	20,300	19,800	86,100
May	24,200	23,500	82,600
June	25,300	24,600	98,100
July	26,900	26,100	100,000
January–July	167,000	163,000	663,000

^cEstimated.

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

TABLE 3
MONTHLY AVERAGE LEAD PRICES

	North American Market ¹ ¢/lb	London Metal Exchange cash		Used lead-acid batteries ² ¢/lb
		¢/lb	\$/t	
2019:				
July	98.54	89.52	1,973.50	33.65
August	101.68	92.66	2,042.70	33.75
September	103.05	93.91	2,070.29	34.22
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
January–July	88.22	80.11	1,766.04	33.89

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 2020¹

(Metric tons, gross weight)

Item	Stocks June 30, 2020	Net receipts	Consumption	Stocks July 31, 2020
Battery-lead	W	67,500	69,600	W
Other ²	W	5,870	5,890	W
Total	8,230	73,400	75,500	6,140
Percent change from preceding month ³	XX	1.1	2.4	-25.4

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 2020¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	83,700	--	--
Remelt lead	W	--	--
Antimonial lead	16,000	W	W
Other ²	W	W	--
Total lead-base	100,000	185	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
2019: ^P				
July	96,600	32,000	1,770	127,000
August	97,200	58,500	1,130	154,000
September	98,200	45,300	1,290	142,000
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	101,000	42,000	1,580	141,000
February	99,500	26,400	1,290	125,000
March	95,900	33,400	1,460	128,000
April	86,100	41,100	1,290	126,000
May	82,600	27,300	909	109,000
June	98,100	34,800	1,370	132,000
July	100,000	27,400	1,700	126,000
January–July	663,000	232,000	9,600	886,000

^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)

	2019 ²		2020		
	January– December	January– July	June	July	January– July
Ores and concentrate (lead content)	259,000	113,000	11,600	32,100	118,000
Bullion	1,230	456	223	161	1,030
Unwrought:					
Refined lead	9,450	9,340	18	33	360
Refined lead containing antimony as the principal alloying element	651	383	48	21	282
Lead alloys	13,700	7,520	1,260	1,570	8,140
Other	1,620	1,180	48	72	810
Total	25,500	18,400	1,370	1,700	9,600
Wrought:					
Bars, rods, profiles, and wire	615	364	32	11	312
Pipes and tubes, including fittings	167	38	--	7	34
Plates, sheets, strip, foil	3,460	2,190	122	202	1,290
Other	2,360	917	127	138	1,430
Total	6,600	3,510	282	358	3,060
Powders and flakes	297	196	2	11	131
Tetraethyl lead and tetramethyl lead	507	400	16	10	116
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	15,500,000	2,180,000	2,810,000	14,600,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,100	22,300	4,510	4,330	29,400

-- 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)

	2019 ²		2020		
	January– December	January– July	June	July	January– July
Australia	--	--	--	--	15,700
Canada	52,400	29,500	1,770	1,430	9,860
China	62,300	14,600	1,730	10,700	17,700
Dominican Republic	34	29	--	--	4
Germany	--	--	8,060	--	8,060
Indonesia	5	--	--	--	--
Italy	23,400	15,500	--	--	16,000
Japan	25,100	5,590	--	5,380	9,550
Korea, Republic of	51,300	25,800	--	5,380	24,100
Laos	11	11	--	--	--
Mexico	24,700	16,400	--	7,950	8,140
Netherlands	15,000	5,340	--	--	8,050
Thailand	3,390	--	--	1,190	1,190
Vietnam	1,760	32	11	--	28
Total	259,000	113,000	11,600	32,100	118,000

-- 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)

	2019 ²		2020		
	January– December	January– July	June	July	January– July
Ores and concentrate (lead content)	8	8	--	--	(3)
Bullion (lead content)	75	75	--	--	217
Unwrought:					
Refined lead	406,000	238,000	28,400	23,800	195,000
Refined lead containing antimony as the principal alloying element (lead content)	27,000	15,700	1,860	1,430	11,500
Lead alloys (lead content)	23,200	11,500	2,210	1,120	9,940
Other (lead content)	44,000	27,000	2,350	1,090	15,500
Total	501,000	293,000	34,800	27,400	232,000
Wrought:					
Bars, rods, profiles, and wire	3,420	1,400	419	487	2,360
Pipes and tubes, including fittings	77	70	81	--	90
Plates, sheets, strip, foil	1,760	1,060	123	135	1,060
Other	2,770	1,840	155	234	1,040
Total	8,020	4,370	778	856	4,560
Powders and flakes	315	192	3	10	132
Tetraethyl lead and tetramethyl lead	139	75	1	29	224
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	528,000	309,000	71,100	25,300	3,670,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	1,100	177	200	1,030
Other lead waste and scrap (lead content)	2,100	1,120	98	130	1,060

-- 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	2019 ²		2020		
	January– December	January– July	June	July	January– July
Refined lead:					
Argentina	4,300	2,590	--	--	1,800
Australia	--	--	690	1,010	9,190
Brazil	9,920	3,710	2,120	1,360	12,100
Burma	1,500	600	--	--	350
Canada	159,000	94,300	6,860	9,110	63,700
China	101	1	--	--	--
Colombia	801	801	175	101	900
Dominican Republic	50	50	26	--	26
Ecuador	19,800	12,900	1,110	625	5,280
Germany	50	50	--	--	--
Ghana	--	--	198	--	421
Hong Kong	100	--	--	--	--
India	4,090	3,320	--	--	3,760
Indonesia	--	--	--	--	76
Israel	2,200	1,650	692	--	1,270
Kazakhstan	17,800	10,700	--	6,670	6,670
Korea, Republic of	76,000	40,800	10,800	--	33,400
Mexico	96,700	60,600	5,620	4,860	40,700
Nigeria	994	349	74	--	3,440
Panama	400	--	--	--	--
Peru	3,030	1,350	--	50	1,280
Russia	6,070	2,690	--	--	10,100
South Africa	20	20	--	--	--
Sri Lanka	--	--	--	--	200
Thailand	1,250	1,160	--	--	192
United Kingdom	404	196	--	--	491
Venezuela	2,080	554	--	--	24
Total	406,000	238,000	28,400	23,800	195,000
Other unwrought lead:³					
Argentina	2,080	1,390	--	--	--
Bolivia	183	124	--	--	--
Brazil	276	--	--	--	173
Canada	86,800	49,100	5,940	2,910	34,200
China	2	--	--	--	--
Chile	--	--	--	299	299
Costa Rica	19	19	--	--	--
Denmark	--	--	--	(4)	(4)
Dominican Republic	--	--	306	--	306
Ecuador	378	334	15	--	163
France	--	--	--	--	30
Germany	1	--	--	--	--
Ghana	--	--	--	--	198
India	321	130	--	74	224
Korea, Republic of	14	5	--	--	--
Mexico	2,700	2,150	110	149	938
Paraguay	49	--	--	--	--
Peru	221	--	--	--	--
Russia	(4)	(4)	--	--	--
Sweden	11	--	--	--	--
Taiwan	(4)	(4)	--	--	--

See footnotes at end of table.

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

(Metric tons, lead content)

Material and country or locality of origin	2019 ²		2020		
	January– December	January– July	June	July	January– July
United Kingdom	1,040	946	46	208	341
Venezuela	185	54	--	--	105
Total	94,300	54,200	6,420	3,640	37,000
Grand total	500,000	292,000	34,800	27,400	232,000

-- 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
2019:				
July	--	27,850	50,650	78,500
August	--	30,875	46,650	77,525
September	--	27,425	42,075	69,500
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

-- Zero.

Source: London Metal Exchange, Ltd.