

Mineral Industry Surveys

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LEAD IN APRIL 2021

Domestic mine production (recoverable) of lead in April was 24,000 metric tons (t). Average daily mine production in April was 800 t, slightly less than that in the previous month (revised) and 21% more than that in April 2020.

Total secondary refined lead production in April was 83,700 t, 7% less than that in the previous month and slightly less than that in April 2020 (fig. 1; tables 1, 2).

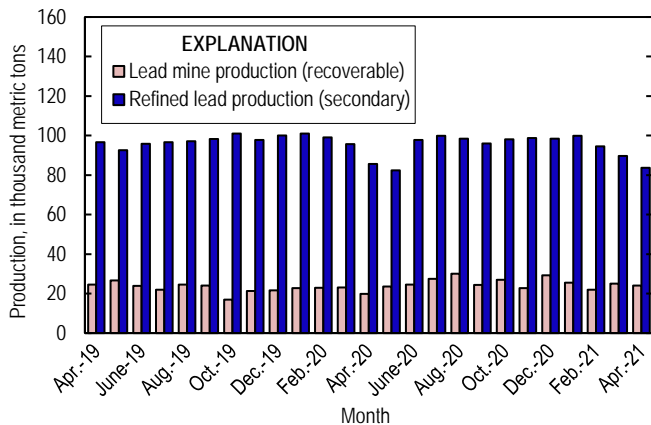


Figure 1. U.S. production of lead from April 2019 through April 2021.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through April 2021 were 55,200 t, 5% more than those for the same period in 2020. Leading destinations in April were the Republic of Korea (35%), China (32%), and Canada (28%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in April was 91.0 cents per pound, slightly more than that in the previous month and 21% more than that in April 2020 (table 3). The S&P Global Platts Metals Week (Platts) average North American Market price for lead in April 2021 was 101.8 cents per pound, slightly more than that in the previous month and 23% more than that in April 2020.

The North American premium to the LME cash price in April 2021 averaged 10.8 cents per pound, essentially unchanged from that in March 2021 and 40% more than that in April 2020 (fig. 2, table 3).

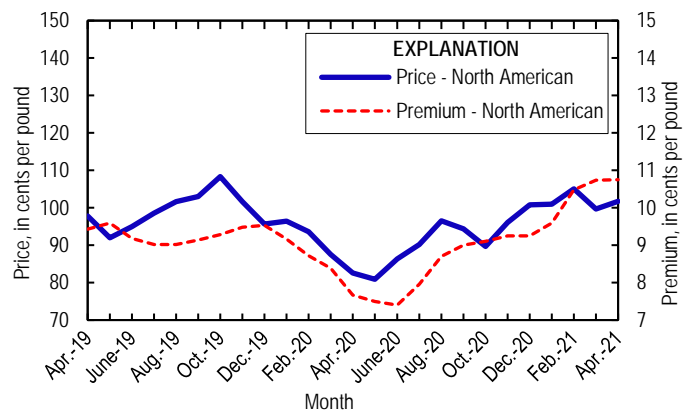


Figure 2. Average monthly North American price and premium for refined lead metal from April 2019 through April 2021. Source: S&P Global Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in April 2021 was 30.9 cents per pound, essentially unchanged from that in March and 5% less than that in April 2020 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of April 2021 were 110,575 t, 8% less than those at the end of March 2021 and 50% more than those at the end of April 2020 (table 11).

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TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2020 ²		2021		
	January– December	January– April	March	April	January– April
Production:					
Mine (recoverable)	297,000	88,600	25,000	24,000	96,600
Secondary refinery, reported by smelters/refineries	1,150,000	381,000	89,600	83,700	368,000
Consumption of refined lead, apparent ^{e, 3}	1,520,000	518,000	135,000	151,000	557,000
Imports for consumption:					
Ore and concentrate	(4)	(4)	87	187	413
Bullion	313	169	--	--	--
Unwrought	382,000	143,000	46,700	69,300	196,000
Exports:					
Ore and concentrate	265,000	52,600	22,000	11,400	55,200
Bullion (gross weight)	2,460	593	48	93	728
Unwrought (gross weight)	16,600	5,620	1,830	2,000	6,900
S&P Global Platts Metals Week North American Market price (cents per pound)	91.25	90.04	99.68	101.76	101.87

^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.

³Secondary refinery production plus imports for consumption of unwrought lead minus domestic exports of unwrought lead.

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	
2020:			
April	20,300	19,800	85,700
May	24,200	23,500	82,300
June	25,300	24,600	97,800
July	28,300	27,500	99,900
August	30,900	30,100	98,400
September	25,100	24,400	96,000
October	27,600	26,900	98,100
November	23,300	22,700	98,700
December	30,100	29,200	98,400
January–December	306,000	297,000	1,150,000
2021:			
January	26,300	25,600	99,900
February	22,600 ^r	22,000	94,500
March	25,800 ^r	25,000	89,600
April	24,700	24,000	83,700
January–April	99,400	96,600	368,000

^cEstimated. ^rRevised.

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	(LME) cash		batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2020:				
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
November	96.09	86.84	1,914.48	28.63
December	100.81	91.56	2,018.60	31.68
January–December	91.25	82.74	1,824.08	33.01
2021:				
January	100.98	91.40	2,014.93	32.75
February	105.08	94.61	2,085.75	31.06
March	99.68	88.94	1,960.76	31.15
April	101.76	91.01	2,006.33	30.88
January–April	101.87	91.49	2,016.94	31.46

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

²S&P Global 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: S&P Global Platts Metals Week.

TABLE 4
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN APRIL 2021¹

(Metric tons, gross weight)

Item	Stocks March 31, 2021	Net receipts	Consumption	Stocks April 30, 2021
Battery-lead	W	76,400	76,700	W
Other ²	W	5,760	5,740	W
Total	11,900	82,200	82,500	11,600
Percent change from preceding month ³	XX	-4.0	-1.9	-2.7

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 APRIL 2021¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	72,200	--	--
Remelt lead	W	--	--
Antimonial lead	11,500	W	W
Other ²	W	W	--
Total lead-base	83,700	W	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
2020: ^P				
April	85,700	41,100	1,290	126,000
May	82,300	27,400	909	109,000
June	97,800	34,800	1,370	131,000
July	99,900	27,400	1,700	126,000
August	98,400	23,900	1,430	121,000
September	96,000	24,300	1,420	119,000
October	98,100	49,300	1,260	146,000
November	98,700	28,500	1,430	126,000
December	98,400	24,000	1,480	121,000
January–December	1,150,000	382,000	16,600	1,520,000
2021:				
January	99,900	44,100	1,640	142,000
February	94,500	35,500	1,430	129,000
March	89,600	46,700	1,830	135,000
April	83,700	69,300	2,000	151,000
January–April	368,000	196,000	6,900	557,000

^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)

Class	2020 ²		2021		
	January– December	January– April	March	April	January– April
Ores and concentrate (lead content)	265,000	52,600	22,000	11,400	55,200
Bullion	2,460	593	48	93	728
Unwrought:					
Refined lead	642	291	105	204	574
Refined lead containing antimony as the principal alloying element	534	187	74	111	381
Lead alloys	14,300	4,800	1,510	1,690	5,700
Other	1,140	341	145	--	246
Total	16,600	5,620	1,830	2,000	6,900
Wrought:					
Bars, rods, profiles, and wire	559	228	21	24	130
Pipes and tubes, including fittings	87	6	--	--	42
Plates, sheets, strip, foil	2,760	843	434	454	1,440
Other	2,370	933	830	185	1,570
Total	5,770	2,010	1,290	663	3,180
Powders and flakes	203	104	17	8	31
Tetraethyl lead and tetramethyl lead	145	83	1	4	11
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,500,000	8,150,000	2,780,000	2,610,000	10,000,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	46,200	15,600	4,400	3,520	12,900

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

(Metric tons, lead content)

Country or locality	2020 ²		2021		
	January– December	January– April	March	April	January– April
Australia	15,700	8,040	--	--	--
Canada	27,700	5,300	3,050	3,170	10,700
China	82,600	1,430	8,060	3,620	11,700
Dominican Republic	4	4	--	--	--
Germany	8,060	--	--	--	7,290
Indonesia	20	--	--	--	--
Italy	16,000	16,000	--	--	--
Japan	20,800	4,170	3,960	--	4,000
Korea, Republic of	49,900	13,500	2,220	4,010	12,000
Mexico	15,800	196	3,750	--	3,780
Netherlands	27,200	4,000	--	--	3,980
Peru	106	--	--	--	--
Philippines	--	--	81	--	81
Thailand	1,190	--	--	--	--
Vietnam	30	17	914	615	1,710
Total	265,000	52,600	22,000	11,400	55,200

-- 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)

Class	2020 ²		2021		
	January– December	January– April	March	April	January– April
Ores and concentrate (lead content)	(3)	(3)	87	187	413
Bullion (lead content)	313	169	--	--	--
Unwrought:					
Refined lead	313,000	119,000	36,000	60,400	161,000
Refined lead containing antimony as the principal alloying element (lead content)	22,800	6,990	3,360	2,570	11,200
Lead alloys (lead content)	18,600	5,960	1,840	1,380	4,840
Other (lead content)	27,700	11,000	5,530	4,950	19,200
Total	382,000	143,000	46,700	69,300	196,000
Wrought:					
Bars, rods, profiles, and wire	4,810	882	589	518	1,980
Pipes and tubes, including fittings	100	10	16	--	18
Plates, sheets, strip, foil	1,350	659	118	71	378
Other	2,050	552	149	119	664
Total	8,310	2,100	871	707	3,040
Powders and flakes	183	97	--	--	19
Tetraethyl lead and tetramethyl lead	278	182	(3)	9	11
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	990,000	306,000	41,800	72,700	253,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,120	574	221	189	837
Other lead waste and scrap (lead content)	2,360	763	142	240	857

-- Zero.

¹Data are rounded to no 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	2020 ²		2021		
	January– December	January– April	March	April	January– April
Refined lead:					
Argentina	1,800	1,700	--	--	--
Australia	15,300	4,780	2,000	1,530	3,530
Azerbaijan	--	--	282	235	517
Belgium	--	--	625	8,040	9,440
Brazil	15,500	6,560	--	117	876
Burma	750	300	--	--	--
Canada	113,000	41,300	10,200	9,830	37,800
Colombia	900	624	--	--	--
Dominican Republic	130	--	--	51	205
Ecuador	7,190	2,950	350	350	1,000
France	--	--	26	--	728
Germany	--	--	8,470	14,800	26,700
Ghana	1,810	--	297	543	1,680
India	3,760	3,520	--	--	--
Indonesia	76	76	--	--	--
Israel	2,050	575	26	--	224
Italy	--	--	79	650	1,170
Japan	299	--	--	--	--
Kazakhstan	13,400	--	129	--	909
Korea, Republic of	48,800	16,500	--	10,700	31,100
Malaysia	--	--	--	--	124
Mexico	67,000	25,700	7,630	6,320	25,700
Nigeria	7,140	2,090	551	470	1,730
Peru	1,900	1,230	100	--	300
Poland	--	--	--	--	49
Russia	11,200	10,100	2,800	280	6,690
South Africa	20	--	557	339	996
Sri Lanka	200	200	--	--	--
Sweden	--	--	1,760	2,220	4,510
Thailand	291	146	--	--	--
United Kingdom	590	491	94	3,990	4,670
Venezuela	245	24	--	--	--
Total	313,000	119,000	36,000	60,400	161,000
Other unwrought lead:³					
Australia	708	--	610	378	1,850
Brazil	208	173	--	--	--
Canada	63,600	22,800	8,870	6,460	29,500
Chile	299	--	--	--	--
Colombia	20	--	--	23	23
Denmark	(4)	--	--	--	--
Dominican Republic	1,070	--	--	151	304
Ecuador	318	147	--	67	111
Egypt	--	--	274	--	274
France	43	--	--	--	--
India	644	131	23	--	46
Korea, Republic of	10	--	--	--	17
Mexico	1,230	429	781	1,500	2,360
Nigeria	--	--	--	--	--
Panama	149	--	149	--	297
Russia	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	2020 ²		2021		
	January– December	January– April	March	April	January– April
Other unwrought lead—Continued: ³					
United Kingdom	615	87	--	285	377
Venezuela	211	105	27	27	81
Total	69,100	23,900	10,700	8,900	35,200
Grand total	382,000	143,000	46,700	69,300	196,000

-- 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
<u>2020:</u>				
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
November	4,425	33,200	75,075	112,700
December	1,550	35,125	96,500	133,175
<u>2021:</u>				
January	--	21,375	75,400	96,775
February	--	19,325	75,300	94,625
March	--	34,000	85,550	119,550
April	--	31,625	78,950	110,575

-- Zero.

Source: London Metal Exchange, Ltd.