

Mineral Industry Surveys

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LEAD IN MAY 2021

Domestic mine production (recoverable) of lead in May was 23,900 metric tons (t). Average daily mine production in May was 772 t, 4% less than that in the previous month and slightly more than that in May 2020.

Total secondary refined lead production in May was 85,100 t, slightly more than that in the previous month and 3% more than that in May 2020 (fig. 1; tables 1, 2).

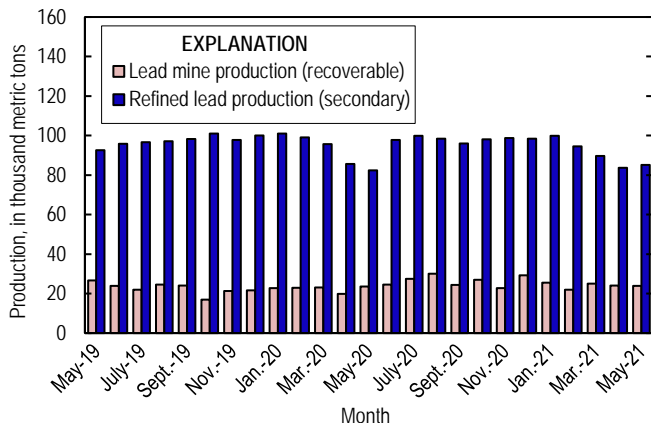


Figure 1. U.S. production of lead from May 2019 through May 2021.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through May 2021 were 71,500 t, 7% more than those for the same period in 2020. Leading destinations in May were Italy (44%), Canada (24%), and China (22%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in May was 99.2 cents per pound, 9% more than that in the previous month and 35% more than that in May 2020 (table 3). The S&P Global Platts Metals Week (Platts) average North American Market price for lead in May 2021 was 110.1 cents per pound, 8% more than that in the previous month and 36% more than that in May 2020.

The North American premium to the LME cash price in May 2021 averaged 10.9 cents per pound, slightly more than that in

April 2021 and 46% more than that in May 2020 (fig. 2, table 3).

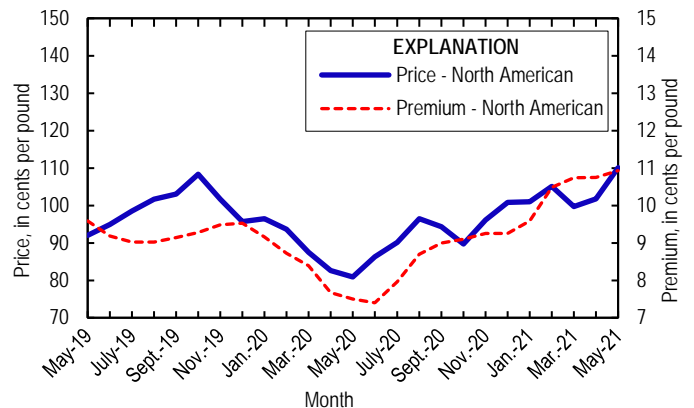


Figure 2. Average monthly North American price and premium for refined lead metal from May 2019 through May 2021. Source: S&P Global Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in May 2021 was 30.9 cents per pound, unchanged from that in April and 4% less than that in May 2020 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of May 2021 were 97,325 t, 12% less than those at the end of April 2021 and 28% more than those at the end of May 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– May	April	May	January– May
Production:					
Mine (recoverable)	297,000	112,000	24,000	23,900	121,000
Secondary refinery, reported by smelters/refineries	1,150,000	463,000	83,700	85,100	453,000
Consumption of refined lead, apparent ^{e, 3}	1,520,000	627,000	151,000	132,000	689,000
Imports for consumption:					
Ore and concentrate	(4)	(4)	187	287	700
Bullion	313	217	--	--	--
Unwrought	382,000	170,000	69,300	48,800	245,000
Exports:					
Ore and concentrate	265,000	67,000	11,400	16,300	71,500
Bullion (gross weight)	2,460	647	93	361	1,090
Unwrought (gross weight)	16,600	6,530	2,000	1,700	8,600
S&P Global Platts Metals Week North American Market price (cents per pound)	91.25	88.21	101.76	110.09	103.52

^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:			
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	22,000	94,500
March	25,800	25,000	89,600
April	24,700	24,000	83,700
May	24,600	23,900	85,100
January–May	124,000	121,000	453,000

^cEstimated.

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

TABLE 3
MONTHLY AVERAGE LEAD PRICES

	North	London Metal Exchange		Used lead-acid
	American Market ¹	(LME) cash		batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2020:				
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
May	110.09	99.15	2,185.92	30.88
January–May	103.52	93.02	2,050.74	31.34

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 MAY 2021¹

(Metric tons, gross weight)

Item	Stocks April 30, 2021	Net receipts	Consumption	Stocks May 31, 2021
Battery-lead	W	73,100	73,500	W
Other ²	W	5,780	5,790	W
Total	11,600	78,900	79,300	11,200
Percent change from preceding month ³	XX	-4.0	-3.9	-3.9

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 MAY 2021¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	72,900	--	--
Remelt lead	W	--	--
Antimonial lead	12,000	W	W
Other ²	W	W	--
Total lead-base	85,100	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				
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
May	85,100	48,800	1,700	132,000
January–May	453,000	245,000	8,600	689,000

^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– May	April	May	January– May
Ores and concentrate (lead content)	265,000	67,000	11,400	16,300	71,500
Bullion	2,460	647	93	361	1,090
Unwrought:					
Refined lead	642	310	204	118	692
Refined lead containing antimony as the principal alloying element	534	213	111	78	459
Lead alloys	14,300	5,310	1,690	1,490	7,190
Other	1,140	691	--	12	258
Total	16,600	6,530	2,000	1,700	8,600
Wrought:					
Bars, rods, profiles, and wire	559	269	24	85	215
Pipes and tubes, including fittings	87	27	--	3	45
Plates, sheets, strip, foil	2,760	962	454	426	1,870
Other	2,370	1,160	185	183	1,750
Total	5,770	2,420	663	697	3,880
Powders and flakes	203	117	8	44	75
Tetraethyl lead and tetramethyl lead	145	89	4	13	25
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,500,000	9,600,000	2,610,000	2,580,000	12,600,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	46,200	19,800	3,520	3,940	16,800

-- 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– May	April	May	January– May
Australia	15,700	8,040	--	--	--
Canada	27,700	6,660	3,170	3,910	14,600
China	82,600	5,270	3,620	3,560	15,200
Dominican Republic	4	4	--	--	--
Germany	8,060	--	--	--	7,290
Indonesia	20	16,000	--	--	--
Italy	16,000	4,170	--	7,190	7,190
Japan	20,800	18,700	--	--	4,000
Korea, Republic of	49,900	196	4,010	1,260	13,300
Mexico	15,800	8,050	--	--	3,780
Netherlands	27,200	--	--	--	3,980
Peru	106	--	--	--	--
Philippines	--	--	--	--	81
Thailand	1,190	--	--	--	--
Vietnam	30	17	615	393	2,100
Total	265,000	67,000	11,400	16,300	71,500

-- 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– May	April	May	January– May
Ores and concentrate (lead content)	(3)	(3)	187	287	700
Bullion (lead content)	313	217	--	--	--
Unwrought:					
Refined lead	313,000	143,000	60,400	37,300	198,000
Refined lead containing antimony as the principal alloying element (lead content)	22,800	8,250	2,570	3,170	14,400
Lead alloys (lead content)	18,600	6,610	1,380	1,540	6,390
Other (lead content)	27,700	11,900	4,950	6,810	26,000
Total	382,000	170,000	69,300	48,800	245,000
Wrought:					
Bars, rods, profiles, and wire	4,810	1,460	518	622	2,600
Pipes and tubes, including fittings	100	10	--	9	27
Plates, sheets, strip, foil	1,350	801	71	70	448
Other	2,050	656	119	229	893
Total	8,310	2,920	707	930	3,970
Powders and flakes	183	119	--	--	19
Tetraethyl lead and tetramethyl lead	278	194	9	1	12
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	990,000	354,000	72,700	89,400	343,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,120	655	189	228	1,060
Other lead waste and scrap (lead content)	2,360	833	240	76	933

-- 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– May	April	May	January– May
Refined lead:					
Argentina	1,800	1,800	--	--	--
Australia	15,300	7,490	1,530	682	4,210
Azerbaijan	--	--	235	--	517
Belgium	--	--	8,040	91	9,530
Brazil	15,500	8,610	117	--	876
Burma	750	350	--	--	--
Canada	113,000	47,800	9,830	7,710	45,500
Colombia	900	624	--	--	--
Dominican Republic	130	--	51	--	205
Ecuador	7,190	3,550	350	361	1,360
France	--	--	--	--	728
Germany	--	--	14,800	5,510	32,200
Ghana	1,810	420	543	99	1,780
India	3,760	3,760	--	--	--
Indonesia	76	76	--	--	--
Israel	2,050	575	--	123	346
Italy	--	--	650	--	1,170
Japan	299	--	--	--	--
Kazakhstan	13,400	--	--	3,650	4,560
Korea, Republic of	48,800	22,600	10,700	--	31,100
Malaysia	--	--	--	--	124
Mexico	67,000	30,200	6,320	7,590	33,200
Nigeria	7,140	3,360	470	647	2,370
Peru	1,900	1,230	--	119	419
Poland	--	--	--	--	49
Russia	11,200	10,100	280	6,980	13,700
Serbia	--	--	--	302	302
South Africa	20	--	339	86	1,080
Spain	--	--	--	1,210	1,210
Sri Lanka	200	200	--	--	--
Sweden	--	--	2,220	--	4,510
Thailand	291	192	--	--	--
United Kingdom	590	491	3,990	2,140	6,810
Venezuela	245	24	--	--	--
Total	313,000	143,000	60,400	37,300	198,000
Other unwrought lead:³					
Australia	708	--	378	1,050	2,910
Brazil	208	173	--	--	--
Canada	63,600	25,300	6,460	8,420	37,900
Chile	299	--	--	--	--
Colombia	20	--	23	22	45
Denmark	(4)	--	--	--	--
Dominican Republic	1,070	--	151	--	304
Ecuador	318	147	67	45	156
Egypt	--	--	--	213	487
France	43	30	--	--	--
India	644	150	--	45	91
Korea, Republic of	10	--	--	33	50
Mexico	1,230	678	1,500	1,560	3,930
Pakistan	--	--	--	16	16
Panama	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– May	April	May	January– May
Other unwrought lead—Continued: ³					
United Kingdom	615	87	285	90	467
Venezuela	211	105	27	27	108
Total	69,100	26,700	8,900	11,500	46,700
Grand total	382,000	170,000	69,300	48,800	245,000

-- 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
2020:				
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
2021:				
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
May	--	30,200	67,125	97,325

-- Zero.

Source: London Metal Exchange, Ltd.