

Mineral Industry Surveys

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LEAD IN FEBRUARY 2021

Domestic mine production (recoverable) of lead in February was 25,800 metric tons (t). Average daily mine production in February was 923 t, 4% more than that in the previous month but 17% more than that in February 2020.

Total secondary refined lead production in February was 94,500 t, 5% less than that in the previous month and in February 2020 (fig. 1; tables 1, 2).

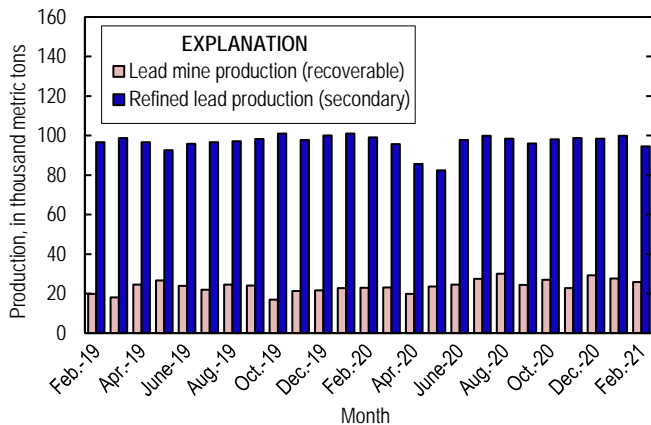


Figure 1. U.S. production of lead from February 2019 through February 2021. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through February 2021 were 21,800 t, 24% more than those for the same period in 2020. Leading destinations in February were Germany (50%), Canada (33%), and the Republic of Korea (14%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in February was 94.6 cents per pound, 4% more than that in the previous month and 11% more than that in February 2020 (table 3). The S&P Global Platts Metals Week (Platts) average North American Market price for lead in February 2021 was \$1.05 per pound, 4% more than that in the previous month and 12% more than that in February 2020.

The North American premium to the LME cash price in February 2021 averaged 10.5 cents per pound, 9% more than that in January 2021 and 20% more than that in February 2020 (fig. 2, table 3).

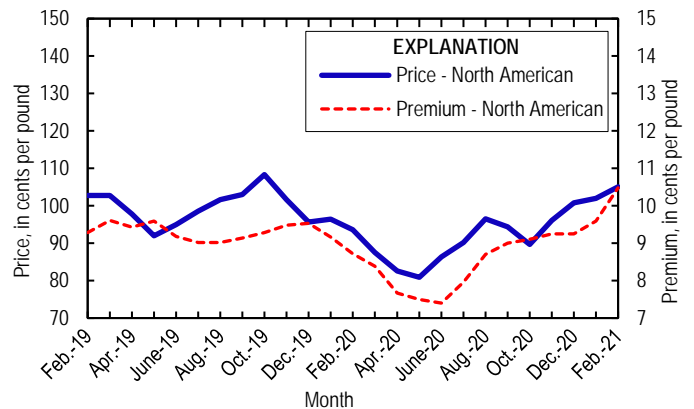


Figure 2. Average monthly North American price and premium for refined lead metal from February 2019 through February 2021. Source: S&P Global Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in February 2021 was 31.1 cents per pound, 5% less than that in January and 15% less than that in February 2020 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of February 2021 were 94,625 t, slightly less than those at the end of January 2021 and 39% more than those at the end of February 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– February	January	February	January– February
Production:					
Mine (recoverable)	297,000	45,700	27,600 ^r	25,800	53,400
Secondary refinery, reported by smelters/refineries	1,150,000	200,000	99,900	94,500	194,000
Consumption of refined lead, apparent ^{e, 3}	1,520,000	265,000	142,000	129,000	271,000
Imports for consumption:					
Ore and concentrate	(4)	--	--	8,080 ⁵	8,080
Bullion	313	--	--	--	--
Unwrought	382,000	68,400	44,100	35,500	79,700
Exports:					
Ore and concentrate	265,000	17,600	14,500	7,290	21,800
Bullion (gross weight)	2,460	237	396	191	587
Unwrought (gross weight)	16,600	2,870	1,640	1,430	3,070
S&P Global Platts Metals Week North American Market price (cents per pound)	91.25	95.04	100.98	105.08	103.03

^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.

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

⁴Less than ½ unit.

⁵Referred to the U.S. Census Bureau for verification.

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

(Metric tons)

Period	Mine		Secondary refinery ^e
	Lead in concentrate	Recoverable	
2020:			
February	23,500	22,900	99,100
March	23,700	23,100	95,600
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	28,300 ^f	27,600 ^f	99,900
February	26,500	25,800	94,500
January–February	54,900	53,400	194,000

^eEstimated. ^fRevised.

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	
2020:				
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
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
January-February	103.03	93.00	2,050.34	31.91

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 FEBRUARY 2021¹

(Metric tons, gross weight)

Item	Stocks January 31, 2021	Net receipts	Consumption	Stocks February 28, 2021
Battery-lead	W	72,000	75,600	W
Other ²	W	5,850	5,810	W
Total	14,000	77,800	81,400	10,500
Percent change from preceding month ³	XX	-8.5	1.2	-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 FEBRUARY 2021¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	78,600	--	--
Remelt lead	W	--	--
Antimonial lead	15,400	W	W
Other ²	W	W	--
Total lead-base	94,500	173	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				
February	99,100	26,400	1,290	124,000
March	95,600	33,400	1,460	128,000
April	85,700	41,100	1,290	126,000
May	82,300	27,300	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
January-February	194,000	79,700	3,070	271,000

^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– February	January	February	January– February
Ores and concentrate (lead content)	265,000	17,600	14,500	7,290	21,800
Bullion	2,460	237	396	191	587
Unwrought:					
Refined lead	642	196	182	84	265
Refined lead containing antimony as the principal alloying element	534	77	30	166	196
Lead alloys	14,300	2,430	1,360	1,140	2,500
Other	1,140	166	62	39	101
Total	16,600	2,870	1,640	1,430	3,070
Wrought:					
Bars, rods, profiles, and wire	559	154	28	57	85
Pipes and tubes, including fittings	87	6	39	3	42
Plates, sheets, strip, foil	2,760	536	208	347	555
Other	2,360	488	273	279	552
Total	5,770	1,180	548	686	1,230
Powders and flakes	203	57	4	2	6
Tetraethyl lead and tetramethyl lead	145	50	3	3	7
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,500,000	4,580,000	2,650,000	2,000,000	4,640,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	46,900	8,070	2,050	2,880	4,940

-- 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)

Country or locality	2020 ²		2021		
	January– December	January– February	January	February	January– February
Australia	15,700	--	--	--	--
Canada	27,500	1,630	2,090	2,400	4,490
China	82,600	--	--	--	--
Dominican Republic	4	4	--	--	--
Germany	8,060	--	3,610	3,680	7,290
Indonesia	20	--	--	--	--
Italy	16,000	7,920	--	--	--
Japan	20,800	--	44	--	44
Korea, Republic of	49,900	3,900	4,730	1,030	5,760
Mexico	15,800	101	32	--	32
Netherlands	27,200	4,000	3,980	--	3,980
Peru	106	--	--	--	--
Thailand	1,190	--	--	--	--
Vietnam	30	17	--	178	178
Total	265,000	17,600	14,500	7,290	21,800

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

(Metric tons, gross weight, unless otherwise specified)

Class	2020 ²		2021		
	January– December	January– February	January	February	January– February
Ores and concentrate (lead content)	(3)	--	--	8,080 ⁴	8,080
Bullion (lead content)	313	--	--	--	--
Unwrought:					
Refined lead	314,000	54,700	36,000	28,100	64,100
Refined lead containing antimony as the principal alloying element (lead content)	22,800	3,500	3,000	2,260	5,260
Lead alloys (lead content)	18,600	2,990	802	828	1,630
Other (lead content)	27,300	7,210	4,330	4,350	8,680
Total	382,000	68,400	44,100	35,500	79,700
Wrought:					
Bars, rods, profiles, and wire	4,810	365	541	334	875
Pipes and tubes, including fittings	100	(3)	2	(3)	2
Plates, sheets, strip, foil	1,350	250	137	53	189
Other	2,050	281	169	228	397
Total	8,310	897	849	614	1,460
Powders and flakes	183	77	19	(3)	19
Tetraethyl lead and tetramethyl lead	278	59	2	(3)	2
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	990,000	113,000	46,100	92,800	139,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,120	238	231	196	427
Other lead waste and scrap (lead content)	2,360	567	199	275	475

-- 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.

⁴Referred 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 LOCALITY¹

(Metric tons, lead content)

Material and country or locality of origin	2020 ²		2021		
	January– December	January– February	January	February	January– February
Refined lead:					
Argentina	1,800	779	--	--	--
Australia	15,900	466	--	--	--
Belgium	--	--	--	773	773
Brazil	15,500	2,120	382	376	759
Burma	750	--	--	--	--
Canada	113,000	23,200	8,750	8,990	17,700
Colombia	900	--	--	--	--
Dominican Republic	130	--	103	51	154
Ecuador	7,190	2,000	100	200	300
France	--	--	--	703	703
Germany	--	--	--	3,390	3,390
Ghana	1,610	--	493	345	839
India	3,760	2,260	--	--	--
Indonesia	76	76	--	--	--
Israel	2,050	575	--	197	197
Italy	--	--	(3)	442	443
Japan	299	--	--	--	--
Kazakhstan	13,400	--	780	--	780
Korea, Republic of	48,800	1,820	18,800	1,600	20,400
Malaysia	--	--	--	124	124
Mexico	67,000	12,400	6,220	5,490	11,700
Nigeria	7,140	871	--	706	706
Peru	1,900	825	100	100	200
Poland	--	--	--	49	49
Russia	11,200	6,860	201	3,410	3,610
South Africa	20	--	--	100	100
Sri Lanka	200	200	--	--	--
Sweden	--	--	--	530	530
Thailand	291	--	--	--	--
United Kingdom	590	98	98	487	585
Venezuela	245	24	--	--	--
Total	314,000	54,700	36,000	28,100	64,100
Other unwrought lead:⁴					
Australia	47	--	--	863	863
Brazil	208	81	--	--	--
Canada	63,600	13,300	7,660	6,470	14,100
Chile	299	--	--	--	--
Colombia	20	--	--	--	--
Denmark	(3)	--	--	--	--
Dominican Republic	1,070	--	153	--	153
Ecuador	318	--	--	45	45
France	43	--	--	--	--
Ghana	198	--	--	--	--
India	644	75	23	--	23
Korea, Republic of	10	--	17	--	17
Mexico	1,230	182	15	63	78
Panama	149	--	149	--	149
Peru	--	--	--	--	--
Russia	4	--	--	(3)	(3)

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– February	January	February	January– February
Other unwrought lead—Continued: ⁴					
United Kingdom	615	--	93	--	93
Venezuela	211	26	27	--	27
Total	68,700	13,700	8,130	7,440	15,600
Grand total	382,000	68,400	44,100	35,500	79,700

-- 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.

⁴Includes 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.

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:				
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
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

-- Zero.

Source: London Metal Exchange, Ltd.