

Mineral Industry Surveys

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LEAD IN FEBRUARY 2020

Domestic mine production (recoverable) of lead in February 2020 was 22,900 metric tons (t). Average daily mine production in February 2020 was 789 t, 8% more than that in the previous month and 12% more than that in February 2019. Total secondary refined lead production in February 2020 was 99,500 t, slightly less than that in the previous month and 3% more than that in February 2019. (fig. 1; tables 1, 2).

per pound, slightly less than that in the previous month and 9% less than that in February 2019.

The North American premium to the LME cash price in February 2020 averaged 8.72 cents per pound, 5% less than that in January 2019 and 6% less than that in February 2019 (fig. 2, table 3).

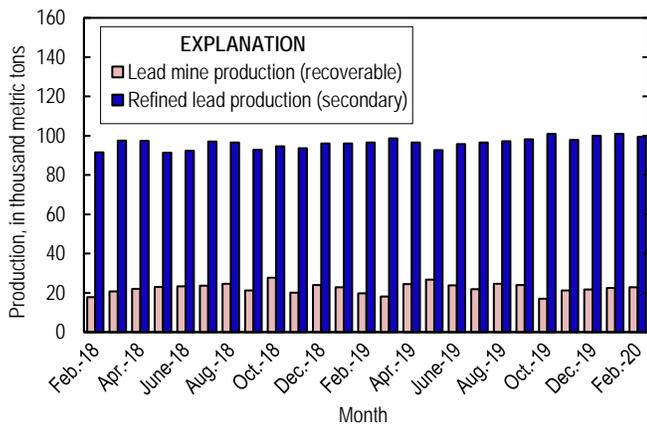


Figure 1. U.S. production of lead from February 2018 through February 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates in February 2020 were 4,740 t, 63% less than those in February 2019. Leading destinations in February 2020 were Republic of Korea (22%) and Canada (17%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in February 2020 was 84.9 cents per pound, slightly less than that in the previous month and 9% less than that in February 2019 (table 3). The Platts Metals Week average North American Market price for lead in February 2020 was 93.6 cents

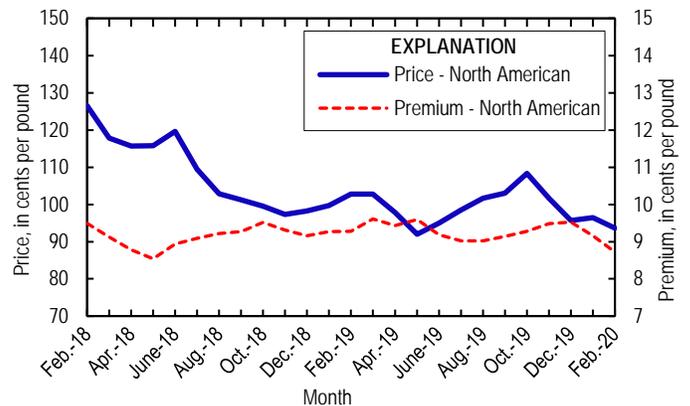


Figure 2. Average monthly North American price and premium for refined lead metal from February 2018 through February 2020. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in February 2020 was 36.4 cents per pound, essentially unchanged from that in January 2019 and 22% more than that in February 2019 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of February 2020 were 668,100 t, slightly more than those at the end of January 2019 and 11% less than those at the end of February 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– February	January	February	January– February
Production:					
Mine (recoverable)	266,000	42,600	22,600	22,900	45,500
Secondary refinery, reported by smelters/refineries	1,170,000	193,000	101,000	99,500	200,000
Consumption of refined lead, apparent ^{e, 3}	1,640,000	273,000	141,000	125,000	266,000
Imports for consumption:					
Ore and concentrate	8	--	--	--	--
Bullion	75	75	--	--	--
Unwrought	501,000	91,200	42,000	26,400	68,400
Exports:					
Ore and concentrate	259,000	26,300	12,800	4,740	17,600
Bullion (gross weight)	1,230	34	38	199	237
Unwrought (gross weight)	25,600	10,900	1,580	1,290	2,870
Platts Metals Week North American Market					
price (cents per pound)	99.91	101.24	96.46	93.63	95.04

^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.

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:			
February	20,300	19,800	96,600
March	18,600	18,100	98,700
April	25,200	24,500	96,600
May	27,400	26,700	92,600
June	24,500	23,900	95,800
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	23,300	22,600	101,000
February	23,700	22,900	99,500
January–February	46,900	45,500	200,000

^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	cash		batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2019:				
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
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
January–February	95.04	86.10	1,898.22	36.59

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 FEBRUARY 2020¹

(Metric tons, gross weight)

Item	Stocks		Consumption	Stocks
	January 31, 2020	Net receipts		February 29, 2020
Battery-lead	W	65,300	67,100	W
Other ²	W	5,830	5,810	W
Total	7,280	71,100	72,900	5,520
Percent change from preceding month ³	XX	-9.1	-5.0	-24.2

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 2020¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	83,200	--	--
Remelt lead	W	--	--
Antimonial lead	16,200	W	W
Other ²	W	W	--
Total lead-base	99,500	184	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				
February	96,600	37,200	1,380	132,000
March	98,700	38,100	1,820	135,000
April	96,600	55,100	918	151,000
May	92,600	34,900	1,320	126,000
June	95,800	41,400	1,860	135,000
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
Year	1,170,000	501,000	25,600	1,640,000
2020:				
January	101,000	42,000	1,580	141,000
February	99,500	26,400	1,290	125,000
January–February	200,000	68,400	2,870	266,000

^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– February	January	February	January– February
Ores and concentrate (lead content)	259,000	26,300	12,800	4,740	17,600
Bullion	1,230	34	38	199	237
Unwrought:					
Refined lead	9,590	8,420	172	24	196
Refined lead containing antimony as the principal alloying element	651	29	18	59	77
Lead alloys	13,700	1,900	1,310	1,120	2,430
Other	1,620	520	76	90	166
Total	25,600	10,900	1,580	1,290	2,870
Wrought:					
Bars, rods, profiles, and wire	615	91	20	134	154
Pipes and tubes, including fittings	167	4	3	3	6
Plates, sheets, strip, foil	3,460	881	278	257	536
Other	2,360	124	183	305	488
Total	6,600	1,100	484	699	1,180
Powders and flakes	297	95	36	21	57
Tetraethyl lead and tetramethyl lead	507	109	25	25	50
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	4,800,000	2,350,000	2,240,000	4,580,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,500	6,950	4,260	3,820	8,070

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– February	January	February	January– February
Canada	52,400	2,170	839	786	1,630
China	62,300	3,760	--	--	--
Dominican Republic	34	11	--	4	4
Indonesia	5	--	--	--	--
Italy	23,400	7,360	7,920	--	7,920
Japan	25,100	--	--	--	--
Korea, Republic of	51,300	1,090	--	3,900	3,900
Laos	11	--	--	--	--
Mexico	24,700	8,050	65	36	101
Netherlands	15,000	3,900	4,000	--	4,000
Thailand	3,390	--	--	--	--
Vietnam	1,760	--	8	9	17
Total	259,000	26,300	12,800	4,740	17,600

-- 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– February	January	February	January– February
Ores and concentrate (lead content)	8	--	--	--	--
Bullion (lead content)	75	75	--	--	--
Unwrought:					
Refined lead	406,000	74,900	34,500	20,200	54,700
Refined lead containing antimony as the principal alloying element (lead content)	27,000	4,640	2,040	1,460	3,500
Lead alloys (lead content)	23,200	3,300	1,350	1,640	2,990
Other (lead content)	44,000	8,380	4,130	3,090	7,210
Total	501,000	91,200	42,000	26,400	68,400
Wrought:					
Bars, rods, profiles, and wire	3,420	238	206	159	365
Pipes and tubes, including fittings	77	27	--	(3)	(3)
Plates, sheets, strip, foil	1,770	235	129	121	250
Other	2,770	581	167	114	281
Total	8,030	1,080	502	394	897
Powders and flakes	315	21	38	39	77
Tetraethyl lead and tetramethyl lead	139	13	46	12	59
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	528,000	83,300	1,670,000	1,450,000	3,120,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	315	125	113	238
Other lead waste and scrap (lead content)	2,100	208	360	207	567

-- 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– February	January	February	January– February
Refined lead:					
Argentina	4,300	732	428	351	779
Australia	--	--	--	466	466
Brazil	9,920	801	2,120	--	2,120
Burma	1,400	--	--	--	--
Canada	159,000	27,300	13,000	10,300	23,200
China	101	--	--	--	--
Colombia	801	--	--	--	--
Dominican Republic	50	25	--	--	--
Ecuador	19,800	2,880	1,630	375	2,000
Germany	50	50	--	--	--
Hong Kong	200	--	--	--	--
India	4,090	99	1,630	622	2,260
Indonesia	--	--	--	76	76
Israel	2,200	555	--	575	575
Kazakhstan	17,800	--	--	--	--
Korea, Republic of	76,000	22,800	1,720	100	1,820
Mexico	96,700	18,500	6,770	5,660	12,400
Nigeria	994	--	771	100	871
Panama	400	--	--	--	--
Peru	3,030	400	425	400	825
Russia	6,070	--	5,790	1,080	6,860
South Africa	20	20	--	--	--
Sri Lanka	--	--	200	--	200
Thailand	1,250	643	--	--	--
United Kingdom	404	--	--	98	98
Venezuela	2,080	25	24	--	24
Total	406,000	74,900	34,500	20,200	54,700
Other unwrought lead:³					
Argentina	2,080	296	--	--	--
Bolivia	183	--	--	--	--
Brazil	276	--	81	--	81
Canada	86,800	14,900	7,260	6,070	13,300
China	2	--	--	--	--
Costa Rica	19	19	--	--	--
Ecuador	378	66	--	--	--
Germany	1	--	--	--	--
India	321	54	37	38	75
Korea, Republic of	14	--	--	--	--
Mexico	2,700	942	132	50	182
Paraguay	49	--	--	--	--
Peru	221	--	--	--	--
Russia	(4)	--	--	--	--
Sweden	11	--	--	--	--
Taiwan	(4)	--	--	--	--
United Kingdom	1,040	--	--	--	--
Venezuela	185	54	--	26	26
Total	94,300	16,300	7,510	6,180	13,700
Grand total	501,000	91,200	42,000	26,400	68,400

-- 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.

TABLE 11
LONDON METAL EXCHANGE (LME) STOCKS OF LEAD, END OF PERIOD

(Metric tons)

Period	United States	Asia	Europe	Total
2019:				
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
August	--	30,900	46,700	77,500
September	--	27,400	42,100	69,500
October	--	27,400	42,700	70,100
November	--	26,300	40,900	67,100
December	--	26,100	40,200	66,200
2020:				
January	--	26,000	40,800	66,800
February	--	25,800	42,400	68,100

-- Zero.

Source: London Metal Exchange, Ltd.