

Mineral Industry Surveys

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LEAD IN FEBRUARY 2019

Domestic mine production (recoverable) of lead in February was 19,800 metric tons (t). Average daily mine production in February was 706 t, 4% less than that in the previous month and 11% more than that in February 2018. Total secondary refined lead production in February was 94,500 t, essentially unchanged from that in the previous month and 3% more than that in February 2018 (fig. 1; tables 1, 2).

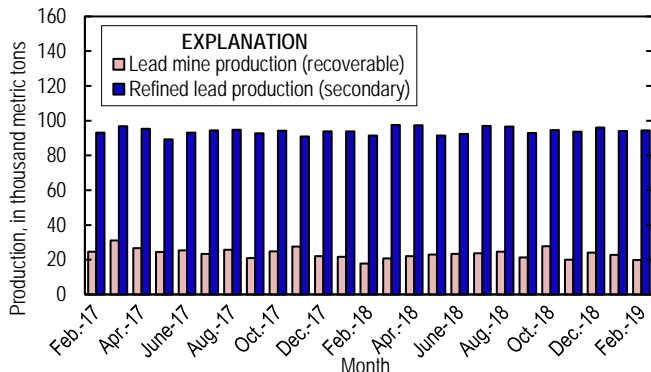


Figure 1. U.S. production of lead from February 2017 through February 2019. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates for the year through February were 26,300 t, slightly more than that those for the same period in 2018. Leading destinations were Mexico (31%), Italy (28%), Netherlands (15%), and China (14%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in February was \$0.94 per pound, 3% more than that in the previous month and 20% less than that in February 2018 (table 3).

The Platts Metals Week average North American Market price for lead in February 2019 was \$1.03 per pound, 3% more than that in the previous month and 19% less than that in

February 2018. The North American premium to the LME cash price in February 2019 averaged about 9.28 cents per pound, essentially unchanged from that in January 2019 and slightly less than that in February 2018 (fig. 2, table 3).

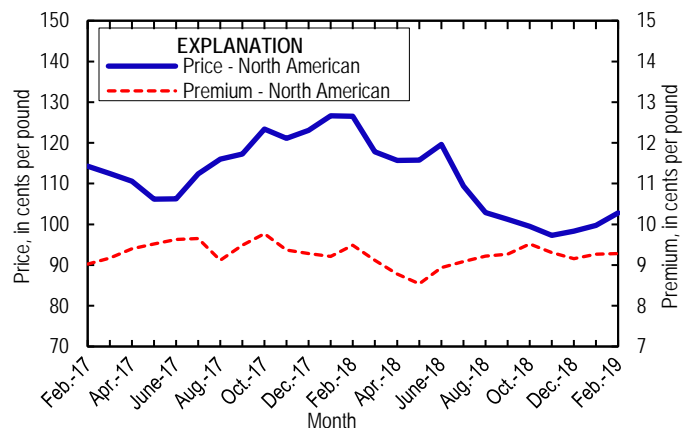


Figure 2. Average monthly North American price and premium for refined lead metal from February 2017 through February 2019. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in February 2019 was 29.9 cents per pound, 3% less than that in January and 32% less than that in February 2018 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of February 2019 were 76,875 t, which were 6% more than those at the end of January 2019 and 39% less than those at the end of February 2018 (table 11).

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TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2018 ²		2019		
	January– December	January– February	January	February	January– February
Production:					
Mine (recoverable)	271,000	40,000	22,800 ^r	19,800	42,600
Secondary refinery, reported by smelters/refineries	1,140,000	187,000	94,100	94,500	189,000
Consumption of refined lead, apparent ^{e,3}	1,630,000	286,000	139,000	130,000	269,000
Imports for consumption:					
Ore and concentrate	--	--	--	--	--
Bullion	789	--	--	75	75
Unwrought	563,000	101,000	54,000	37,200	91,200
Exports:					
Ore and concentrate	251,000	26,000	16,300	10,000	26,300
Bullion (gross weight)	2,060	441	34	--	34
Unwrought (gross weight)	67,200	2,270	9,490	1,380	10,900
Platts Metals Week North American Market					
price (cents per pound)	110.89	126.59	99.70	102.78	101.24

^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.

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	
2018:			
February	17,900	17,900	91,500
March	21,200	20,700	97,500
April	22,800	22,200	97,300
May	23,600	23,000	91,400
June	24,000	23,400	92,400
July	24,300	23,700	97,000
August	25,300	24,600	96,600
September	23,300	21,300	92,900
October	28,500	27,700	94,600
November	20,600	20,100	93,600
December	24,700	24,000	96,000
January–December	280,000	271,000	1,140,000
January	23,500	22,800 ^r	94,100
February	20,300	19,800	94,500
January–February	43,800	42,600	189,000

^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	cash		batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2018:				
February	126.53	117.04	2,580.29	43.88
March	117.82	108.70	2,396.45	43.50
April	115.69	106.91	2,356.95	43.25
May	115.75	107.20	2,363.44	44.25
June	119.63	110.68	2,440.14	43.19
July	109.44	100.35	2,212.39	41.60
August	102.85	93.64	2,064.34	37.03
September	101.25	91.98	2,027.78	34.38
October	99.53	90.02	1,984.58	33.00
November	97.29	87.98	1,939.65	31.25
December	98.29	89.13	1,965.07	30.63
January–December	110.89	101.76	2,243.35	39.10
2019:				
January	99.70	90.43	1,993.73	30.95
February	102.78	93.51	2,061.45	29.94
January–February	101.24	91.97	2,027.59	30.44

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 2019¹

(Metric tons, gross weight)

Item	Stocks January 31, 2019	Net receipts	Consumption	Stocks February 28, 2019
Battery-lead	26,900	70,700	71,100	26,600
Other ²	13,900	15,200	15,100	14,000
Total	40,800	85,900	86,200	40,500
Percent change from preceding month ³	XX	-4.3	-2.6	-0.8

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 2019¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	79,800	--	--
Remelt lead	W	--	--
Antimonial lead	14,200	W	W
Other ²	W	W	--
Total lead-base	94,500	190	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
2018: ^P				
February	91,500	65,100	1,510	155,000
March	97,500	66,700	1,740	162,000
April	97,300	44,900	2,790	139,000
May	91,400	40,500	2,780	129,000
June	92,400	55,200	4,200	143,000
July	97,000	33,600	3,460	127,000
August	96,600	39,300	4,640	131,000
September	92,900	58,700	12,600	139,000
October	94,600	38,500	12,300	121,000
November	93,600	46,100	14,000	126,000
December	96,000	38,000	6,360	128,000
January–December	1,140,000	563,000	67,200	1,630,000
2019:				
January	94,100	54,000	9,490	139,000
February	94,500	37,200	1,380	130,000
January–February	189,000	91,200	10,900	269,000

^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)

	2018 ²		2019		
	January– December	January– February	January	February	January– February
Ores and concentrate (lead content):	251,000	26,000	16,300	10,000	26,300
Bullion	2,060	441	34	--	34
Unwrought:					
Refined lead	49,300	128	8,260	161	8,420
Refined lead containing antimony as the principal alloying element	654	140	--	29	29
Lead alloys	14,400	1,850	1,140	763	1,900
Other	2,850	149	90	430	520
Total	67,200	2,270	9,490	1,380	10,900
Wrought:					
Bars, rods, profiles, and wire	886	117	54	37	91
Pipes and tubes, including fittings	116	28	1	3	4
Plates, sheets, strip, foil	3,180	733	412	469	881
Other	1,780	152	68	56	124
Total	5,960	1,030	535	565	1,100
Powders and flakes	372	38	44	51	95
Tetraethyl lead and tetramethyl lead	502	69	81	28	109
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	26,800,000	4,420,000	2,430,000	2,370,000	4,800,000
Lead waste and scrap obtained from lead-acid storage batteries	9,200	2,130	--	--	--
Other lead waste and scrap	39,700	6,600	2,900	4,050	6,950

-- 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 COUNTRY¹

(Metric tons, lead content)

	2018 ²		2019		
	January– December	January– February	January	February	January– February
Australia	7,310	--	--	--	--
Canada	51,200	3,070	929	1,240	2,170
China	73,600	10,800	--	3,760	3,760
Dominican Republic	--	--	--	11	11
Germany	15,100	--	--	--	--
Italy	7,170	7,170	7,360	--	7,360
Japan	19,100	--	--	--	--
Korea, Republic of	48,700	1,290	--	1,090	1,090
Mexico	19,100	103	8,010	35	8,050
Netherlands	7,100	3,570	--	3,900	3,900
Saudi Arabia	27	27	--	--	--
Thailand	2,520	--	--	--	--
Total	251,000	26,000	16,300	10,000	26,300

-- 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)

	2018 ²		2019		
	January– December	January– February	January	February	January– February
Ores and concentrate (lead content):	--	--	--	--	--
Bullion (lead content)	789	--	--	75	75
Unwrought:					
Refined lead	448,000	83,100	45,200	29,700	74,900
Refined lead containing antimony as the principal alloying element (lead content)	45,200	7,100	2,720	1,910	4,640
Lead alloys (lead content)	18,600	2,290	1,920	1,370	3,300
Other (lead content)	50,800	8,850	4,150	4,230	8,380
Total	563,000	101,000	54,000	37,200	91,200
Wrought:					
Bars, rods, profiles, and wire	1,020	142	152	86	238
Pipes and tubes, including fittings	29	(3)	2	25	27
Plates, sheets, strip, foil	1,740	263	131	104	235
Other	4,110	833	263	319	581
Total	6,900	1,240	547	533	1,080
Powders and flakes	203	17	2	19	21
Tetraethyl lead and tetramethyl lead	759	150	1	12	13
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	1,050,000	113,000	27,600	55,700	83,300
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	1,660	270	137	178	315
Other lead waste and scrap (lead content)	2,450	350	88	120	208

-- 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	2018 ²		2019		
	January– December	January– February	January	February	January– February
Refined lead:					
Argentina	6,050	1,070	330	402	732
Australia	2,780	--	--	--	--
Brazil	15,500	3,630	401	400	801
Burma	100	--	--	--	--
Canada	148,000	24,600	13,800	13,400	27,300
Chile	100	--	--	--	--
Colombia	491	291	--	--	--
Dominican Republic	250	25	25	--	25
Ecuador	10,900	1,890	1,050	1,830	2,880
Germany	--	--	--	50	50
Honduras	199	199	--	--	--
India	23,200	6,180	99	--	99
Israel	1,820	664	458	97	555
Kazakhstan	5,130	--	--	--	--
Korea, Republic of	106,000	24,000	18,800	3,990	22,800
Mexico	107,000	15,100	9,640	8,910	18,500
Nigeria	47	--	--	--	--
Panama	125	--	--	--	--
Peru	3,350	800	--	400	400
Russia	6,460	769	--	--	--
South Africa	174	174	20	--	20
Sri Lanka	625	300	--	--	--
Thailand	7,500	2,030	445	199	643
United Kingdom	485	95	--	--	--
Venezuela	2,460	1,270	25	--	25
Total	449,000	83,100	45,100	29,700	74,800
Other unwrought lead:³					
Argentina	1,920	612	--	296	296
Canada	93,100	14,700	7,990	6,890	14,900
Chile	1,780	587	--	--	--
Columbia	1,040	--	--	--	--
Costa Rica	4,470	512	19	--	19
Ecuador	125	--	66	--	66
Honduras	2,490	1,170	--	--	--
India	93	--	18	35	54
Mexico	8,150	116	678	264	942
Panama	199	199	--	--	--
Peru	50	50	--	--	--
Russia	209	--	--	--	--
South Africa	95	--	--	--	--
Venezuela	885	344	27	27	54
Total	115,000	18,200	8,800	7,510	16,300
Grand total	563,000	101,000	54,000	37,200	91,200

-- Zero.

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

²May include revisions to previously published data.

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.

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
2018:				
February	--	44,400	80,900	125,000
March	--	42,500	86,600	129,000
April	--	42,100	88,700	131,000
May	--	41,500	92,000	133,000
June	--	40,100	91,500	132,000
July	--	35,000	92,000	127,000
August	--	33,600	89,300	123,000
September	--	27,200	88,500	116,000
October	--	23,600	90,000	114,000
November	--	21,100	84,100	105,000
December	--	20,700	86,700	107,000
2019:				
January	--	19,300	53,200	72,500
February	--	22,600	54,300	76,900
-- Zero.				

Source: London Metal Exchange, Ltd.