

Mineral Industry Surveys

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LEAD IN MARCH 2020

Domestic mine production (recoverable) of lead in March 2020 was 23,100 metric tons (t). Average daily mine production in March 2020 was 745 t, 6% less than that in the previous month and 27% more than that in March 2019. Total secondary refined lead production in March 2020 was 95,900 t, 4% less than that in the previous month and slightly less than that in March 2019 (fig. 1; tables 1, 2).

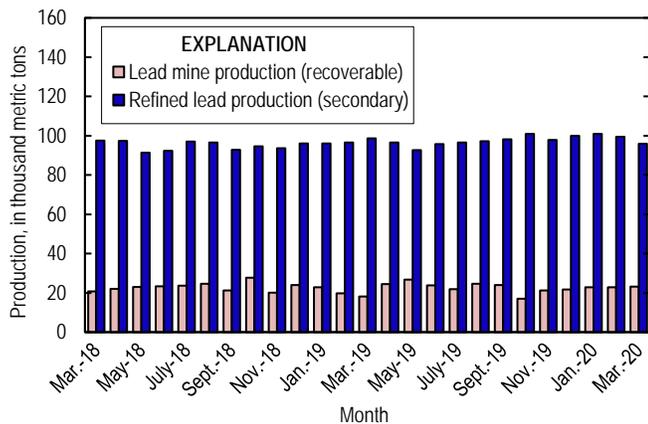


Figure 1. U.S. production of lead from March 2018 through March 2020. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates through March 2020 were 37,800 t, 10% less than those for the same period in 2019. Leading destinations in March 2020 were Republic of Korea (47%) and Australia (40%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in March 2020 was 79.1 cents per pound, 7% less than that in the previous month and 15% less than that in March 2019 (table 3). The Platts Metals Week average North American Market price for lead in March 2020 was 87.5 cents per pound,

7% less than that in the previous month and 15% less than that in March 2019.

The North American premium to the LME cash price in March 2020 averaged 8.39 cents per pound, 4% less than that in February 2020 and 13% less than that in March 2019 (fig. 2, table 3).

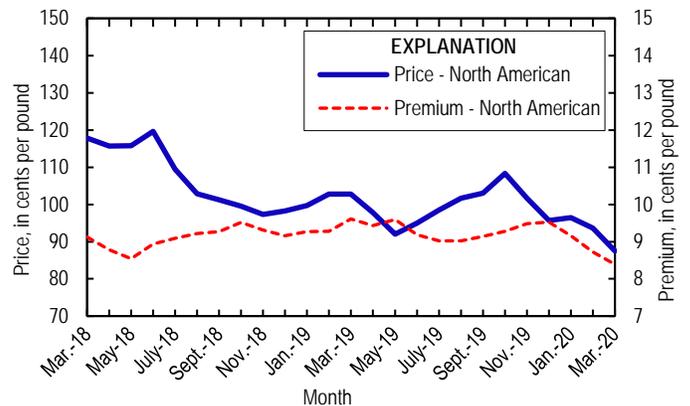


Figure 2. Average monthly North American price and premium for refined lead metal from March 2018 through March 2020. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in March 2020 was 34.8 cents per pound, 5% less than that in February 2020 and 11% more than that in March 2019 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of March 2020 were 70,900 t, 4% more than those at the end of February 2020 and 10% less than those at the end of March 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– March	February	March	January– March
Production:					
Mine (recoverable)	266,000	60,700	22,900	23,100	68,800
Secondary refinery, reported by smelters/refineries	1,170,000	291,000	99,500	95,900	296,000
Consumption of refined lead, apparent ^{e, 3}	1,640,000	408,000	125,000	128,000	394,000
Imports for consumption:					
Ore and concentrate	8	--	--	(4)	(4)
Bullion	75	75	--	114	114
Unwrought	501,000	129,000	26,400	33,400	102,000
Exports:					
Ore and concentrate	259,000	41,900	4,740	20,200	37,800
Bullion (gross weight)	1,230	34	199	303	540
Unwrought (gross weight)	25,600	12,700	1,290	1,460	4,330
Platts Metals Week North American Market					
price (cents per pound)	99.91	101.76	93.63	87.50	92.53

^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.

⁴Less than ½ unit.

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

(Metric tons)

Period	Mine		Secondary refinery ^e
	Lead in concentrate	Recoverable	
2019:			
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	23,500 ^r	22,800 ^r	101,000
February	23,500 ^r	22,900	99,500
March	23,700	23,100	95,900
January–March	70,700	68,800	296,000

^eEstimated. ^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
2019:				
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
March	87.50	79.11	1,744.14	34.78
January–March	92.53	83.77	1,846.86	35.99

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 MARCH 2020¹

(Metric tons, gross weight)

Item	Stocks February 29, 2020	Net receipts	Consumption	Stocks March 31, 2020
Battery-lead	W	64,700	63,000	W
Other ²	W	5,990	5,930	W
Total	5,520	70,700	68,900	7,280
Percent change from preceding month ³	XX	-0.7	-5.5	32.0

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 MARCH 2020¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	79,200	--	--
Remelt lead	W	--	--
Antimonial lead	16,200	W	W
Other ²	W	W	--
Total lead-base	95,900	185	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				
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
January–December	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
March	95,900	33,400	1,460	128,000
January–March	296,000	102,000	4,330	394,000

^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– March	February	March	January– March
Ores and concentrate (lead content)	259,000	41,900	4,740	20,200	37,800
Bullion	1,230	34	199	303	540
Unwrought:					
Refined lead	9,590	8,470	24	65	261
Refined lead containing antimony as the principal alloying element	651	242	59	48	125
Lead alloys	13,700	3,340	1,120	1,270	3,700
Other	1,620	646	90	83	249
Total	25,600	12,700	1,290	1,460	4,330
Wrought:					
Bars, rods, profiles, and wire	615	154	134	43	198
Pipes and tubes, including fittings	167	11	3	(3)	6
Plates, sheets, strip, foil	3,460	1,200	257	163	699
Other	2,360	283	305	189	677
Total	6,600	1,640	699	396	1,580
Powders and flakes	297	133	21	42	99
Tetraethyl lead and tetramethyl lead	507	283	25	11	61
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	27,300,000	6,780,000	2,240,000	2,140,000	6,730,000
Lead waste and scrap obtained from lead-acid storage batteries	--	--	--	--	--
Other lead waste and scrap	39,500	10,600	3,820	3,870	11,900

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

(Metric tons, lead content)

	2019 ²		2020		
	January– December	January– March	February	March	January– March
Australia	--	--	--	8,040	8,040
Canada	52,400	12,000	786	968	2,590
China	62,300	3,760	--	1,430	1,430
Dominican Republic	34	11	4	--	4
Indonesia	5	--	--	--	--
Italy	23,400	7,360	--	--	7,920
Japan	25,100	164	--	118	118
Korea, Republic of	51,300	6,590	3,900	9,570	13,500
Laos	11	--	--	--	--
Mexico	24,700	8,110	36	95	196
Netherlands	15,000	3,900	--	--	4,000
Thailand	3,390	--	--	--	--
Vietnam	1,760	--	9	--	17
Total	259,000	41,900	4,740	20,200	37,800

-- 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)

	2019 ²		2020		
	January– December	January– March	February	March	January– March
Ores and concentrate (lead content)	8	--	--	(3)	(3)
Bullion (lead content)	75	75	--	114	114
Unwrought:					
Refined lead	406,000	103,000	20,200	27,500	82,200
Refined lead containing antimony as the principal alloying element (lead content)	27,000	6,480	1,460	1,800	5,300
Lead alloys (lead content)	23,200	4,830	1,640	2,010	5,000
Other (lead content)	44,000	14,800	3,090	2,050	9,260
Total	501,000	129,000	26,400	33,400	102,000
Wrought:					
Bars, rods, profiles, and wire	3,420	382	159	125	490
Pipes and tubes, including fittings	77	48	(3)	9	10
Plates, sheets, strip, foil	1,770	368	121	162	411
Other	2,770	1,060	114	153	434
Total	8,030	1,850	394	448	1,340
Powders and flakes	315	59	39	--	77
Tetraethyl lead and tetramethyl lead	139	25	12	77	136
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	528,000	105,000	1,450,000	383,000	3,500,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	2,320	403	113	261	499
Other lead waste and scrap (lead content)	2,100	385	207	125	691

-- 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– March	February	March	January– March
Refined lead:					
Argentina	4,300	1,110	351	627	1,410
Australia	--	--	466	2,910	3,380
Brazil	9,920	1,800	--	1,870	4,000
Burma	1,400	--	--	200	200
Canada	159,000	42,100	10,300	9,790	33,000
China	101	--	--	--	--
Colombia	801	--	--	349	349
Dominican Republic	50	50	--	--	--
Ecuador	19,800	5,080	375	450	2,450
Germany	50	50	--	--	--
Hong Kong	200	--	--	--	--
India	4,090	99	622	568	2,820
Indonesia	--	--	76	--	76
Israel	2,200	555	575	--	575
Kazakhstan	17,800	486	--	--	--
Korea, Republic of	76,000	22,800	100	--	1,820
Mexico	96,700	27,200	5,660	7,460	19,900
Nigeria	994	--	100	647	1,520
Panama	400	--	--	--	--
Peru	3,030	950	400	400	1,230
Russia	6,070	--	1,080	1,950	8,810
South Africa	20	20	--	--	--
Sri Lanka	--	--	--	--	200
Thailand	1,250	811	--	96	96
United Kingdom	404	98	98	196	294
Venezuela	2,080	25	--	--	24
Total	406,000	103,000	20,200	27,500	82,200
Other unwrought lead:³					
Argentina	2,080	424	--	--	--
Bolivia	183	--	--	--	--
Brazil	276	--	--	30	111
Canada	86,800	24,200	6,070	5,490	18,800
China	2	--	--	--	--
Costa Rica	19	19	--	--	--
Ecuador	378	110	--	125	125
Germany	1	--	--	--	--
India	321	54	38	38	113
Korea, Republic of	14	--	--	--	--
Mexico	2,700	1,120	50	63	245
Paraguay	49	--	--	--	--
Peru	221	--	--	--	--
Russia	(4)	--	--	--	--
Sweden	11	--	--	--	--
Taiwan	(4)	--	--	--	--
United Kingdom	1,040	63	--	87	87
Venezuela	185	54	26	26	53
Total	94,300	26,100	6,180	5,860	19,600
Grand total	501,000	129,000	26,400	33,400	102,000

-- 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.

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

(Metric tons)

Period	United States	Asia	Europe	Total
2019:				
March	--	22,225	56,525	78,750
April	--	22,075	52,350	74,425
May	--	20,600	48,800	69,400
June	--	19,050	46,700	65,750
July	--	27,850	50,650	78,500
August	--	30,875	46,650	77,525
September	--	27,425	42,075	69,500
October	--	27,400	42,675	70,075
November	--	26,250	40,875	67,125
December	--	26,050	40,150	66,200
2020:				
January	--	26,000	40,800	66,800
February	--	25,750	42,350	68,100
March	--	26,250	44,650	70,900

-- Zero.

Source: London Metal Exchange, Ltd.