

Mineral Industry Surveys

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LEAD IN APRIL 2019

Domestic mine production (recoverable) of lead in April was 24,600 metric tons (t). Average daily mine production in April was 821 t, 40% more than that in the previous month and 11% more than that in April 2018. Total secondary refined lead production in April was 94,600 t, slightly less than that in the previous month and in April 2018 (fig. 1; tables 1, 2).

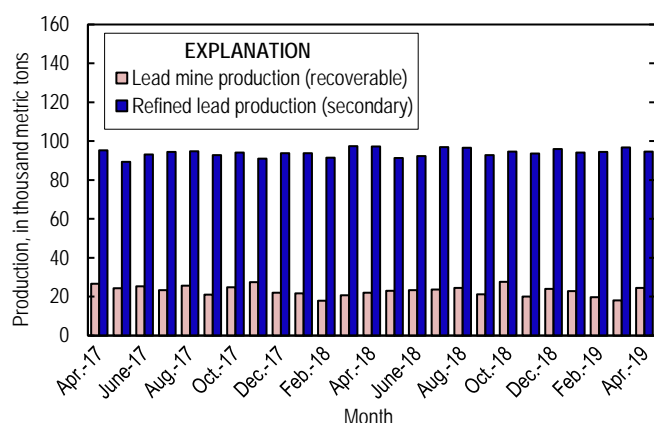


Figure 1. U.S. production of lead from April 2017 through April 2019. Source: U.S. Geological Survey.

The United States is a significant exporter of lead concentrates. U.S. exports of lead in ores and concentrates for the year through April were 43,200 t, 22% less than that for the same period in 2018. Leading destinations were Canada (31%), Mexico (19%), Italy (17%), and the Republic of Korea (15%) (table 8).

Prices and Stocks

The average London Metal Exchange, Ltd. (LME) cash price for lead in April was \$0.88 per pound, 5% less than that in the previous month and 17% less than that in April 2018 (table 3).

The Platts Metals Week average North American Market price for lead in April 2019 was \$0.98 per pound, 5% less than that in the previous month and 15% less than that in April 2018.

The North American premium to the LME cash price in April 2019 averaged about 9.43 cents per pound, slightly less than that in March 2019 and 7% more than that in April 2018 (fig. 2, table 3).

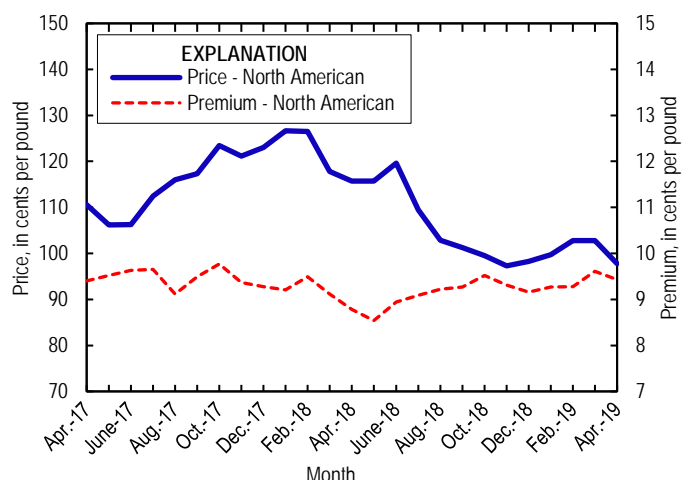


Figure 2. Average monthly North American price and premium for refined lead metal from April 2017 through April 2019. Source: Platts Metals Week.

The Platts average U.S. used lead-acid batteries (Midwest) price in April 2019 was 33.7 cents per pound, 7% more than that in March and 22% less than that in April 2018 (table 3). Most secondary lead is recovered from used lead-acid batteries.

Global LME lead stocks at the end of April 2019 were 74,425 t, 5% less than those at the end of March 2019 and 43% less than those at the end of April 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– April	March	April	January– April ²
Production:					
Mine (recoverable)	271,000	82,800	18,100	24,600	85,400
Secondary refinery, reported by smelters/refineries	1,140,000	381,000	96,700	94,600	380,000
Consumption of refined lead, apparent ^{c, 3}	1,630,000	588,000	133,000	149,000	551,000
Imports for consumption:					
Ore and concentrate	--	--	--	--	--
Bullion	789	23	--	--	75
Unwrought	563,000	213,000	38,100	55,100	184,000
Exports:					
Ore and concentrate	251,000	55,300	15,600	1,330	43,200
Bullion (gross weight)	2,060	755	--	--	34
Unwrought (gross weight)	67,200	6,790	1,820	918	13,600
Platts Metals Week North American Market price (cents per pound)	110.89	121.67	102.78	97.80	100.77

^cEstimated. -- 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:			
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
2019:			
January	23,500	22,800	94,100
February	20,300	19,800	94,500
March	18,600	18,100	96,700
April	25,300	24,600	94,600
January–April	87,700	85,400	380,000

^cEstimated. W Withheld to avoid disclosing company proprietary data.

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	London Metal Exchange cash		Used lead-acid batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2018:				
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
March	102.78	93.17	2,054.14	31.34
April	97.80	88.37	1,948.26	33.65
January–April	100.77	91.37	2,014.40	31.47

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 APRIL 2019¹

(Metric tons, gross weight)

Item	Stocks March 31, 2019	Net receipts	Consumption	Stocks April 30, 2019
Battery-lead	W	75,800	72,100	W
Other ²	W	15,200	15,200	W
Total	36,900	91,000	87,300	40,600
Percent change from preceding month ³	XX	5.0	-3.2	10.0

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 APRIL 2019¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	80,100	--	--
Remelt lead	W	--	--
Antimonial lead	13,900	W	W
Other ²	W	W	--
Total lead-base	94,600	188	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				
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
March	96,700	38,100	1,820	133,000
April	94,600	55,100	918	149,000
January–April	380,000	184,000	13,600	551,000

^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– April	March	April	January– April
Ores and concentrate (lead content):	251,000	55,300	15,600	1,330	43,200
Bullion	2,060	755	--	--	34
Unwrought:					
Refined lead	49,300	1,650	44	73	8,540
Refined lead containing antimony as the principal alloying element	654	229	213	19	261
Lead alloys	14,400	4,440	1,430	419	3,760
Other	2,850	477	126	407	1,050
Total	67,200	6,790	1,820	918	13,600
Wrought:					
Bars, rods, profiles, and wire	886	313	63	87	240
Pipes and tubes, including fittings	116	33	7	1	12
Plates, sheets, strip, foil	3,180	1,460	314	280	1,480
Other	1,770	389	159	217	101
Total	5,960	2,190	543	585	2,230
Powders and flakes	372	97	38	15	148
Tetraethyl lead and tetramethyl lead	502	67	174	43	325
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	26,800,000	9,110,000	1,980,000	1,930,000	8,710,000
Lead waste and scrap obtained from lead-acid storage batteries	9,200	4,380	--	--	--
Other lead waste and scrap	40,300	13,200	3,630	3,690	14,300

--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– April	March	April	January– April
Australia	7,310	--	--	--	--
Canada	51,200	16,300	9,830	1,290	13,300
China	73,600	13,400	--	--	3,760
Dominican Republic	--	--	--	18	29
Germany	15,100	--	--	--	--
Italy	7,170	7,170	--	--	7,360
Japan	19,100	35	164	--	164
Korea, Republic of	48,700	3,880	5,500	--	6,590
Laos	--	--	--	11	11
Mexico	19,100	7,400	63	--	8,110
Netherlands	7,100	7,100	--	--	3,900
Saudi Arabia	27	27	--	--	--
Thailand	2,520	--	--	--	--
Vietnam	--	--	--	10	101
Total	251,000	55,300	15,600	1,330	43,200

-- Zero.

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

²May include revisions to previously published data.

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– April	March	April	January– April
Ores and concentrate (lead content):	--	--	--	--	--
Bullion (lead content)	789	23	--	--	75
Unwrought:					
Refined lead	448,000	172,000	28,300	47,100	150,000
Refined lead containing antimony as the principal alloying element (lead content)	45,200	16,000	1,840	2,790	9,260
Lead alloys (lead content)	18,600	5,540	1,540	1,060	5,890
Other (lead content)	50,800	19,100	6,400	4,170	19,000
Total	563,000	213,000	38,100	55,100	184,000
Wrought:					
Bars, rods, profiles, and wire	1,020	384	144	160	542
Pipes and tubes, including fittings	29	(3)	21	(3)	48
Plates, sheets, strip, foil	1,740	443	133	154	522
Other	4,090	1,470	474	313	101
Total	6,890	2,300	772	628	2,480
Powders and flakes	203	74	38	70	130
Tetraethyl lead and tetramethyl lead	716	433	13	10	35
Waste and scrap:					
Spent lead-acid storage batteries for starting engines (units)	1,050,000	185,000	22,000	17,700	123,000
Lead waste and scrap obtained from lead-acid storage batteries (lead content)	1,660	598	88	187	589
Other lead waste and scrap (lead content)	2,450	755	178	186	572

-- 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– April	March	April	January– April
Refined lead:					
Argentina	6,050	1,980	377	279	1,390
Australia	2,780	--	--	--	--
Brazil	15,500	7,620	1,000	--	1,800
Burma	100	--	--	--	--
Canada	148,000	46,900	14,800	14,800	56,900
Chile	100	--	--	--	--
Colombia	491	491	--	801	801
Dominican Republic	250	100	25	--	50
Ecuador	10,900	4,610	2,200	2,150	7,230
Germany	--	--	--	--	50
Honduras	199	199	--	--	--
India	23,200	16,600	--	1,540	101
Israel	1,820	1,020	--	--	555
Kazakhstan	5,130	1,090	486	486	972
Korea, Republic of	106,000	44,200	--	17,000	39,800
Mexico	107,000	33,800	8,620	8,790	36,000
Nigeria	47	--	--	--	--
Panama	125	125	--	--	--
Peru	3,350	1,650	550	400	1,350
Russia	6,460	6,460	--	--	--
South Africa	174	174	--	--	20
Sri Lanka	625	525	--	--	--
Thailand	7,500	3,190	167	198	1,010
United Kingdom	485	96	98	98	196
Venezuela	2,460	1,470	--	504	529
Total	448,000	172,000	28,300	47,100	150,000
Other unwrought lead: ³					
Argentina	1,920	1,260	128	397	821
Canada	93,100	33,600	9,370	7,110	31,400
Chile	1,780	1,190	--	--	--
Colombia	1,040	640	--	--	--
Costa Rica	4,470	976	--	--	19
Dominican Republic	--	656	--	--	--
Ecuador	125	--	44	23	134
Honduras	2,490	1,420	--	--	--
India	93	--	--	20	73
Israel	--	49	--	--	--
Korea, Republic of	--	265	--	--	--
Mexico	8,150	233	179	457	1,580
Panama	199	--	--	--	--
Peru	50	--	--	--	--
Russia	209	--	--	(4)	(4)
South Africa	95	35	--	--	--
United Kingdom	--	--	63	--	63
Venezuela	885	397	--	--	54
Total	115,000	40,700	9,780	8,010	34,100
Grand total	563,000	213,000	38,100	55,100	184,000

-- 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
2018:				
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
March	--	22,200	56,500	78,800
April	--	22,100	52,400	74,400
-- Zero.				

Source: London Metal Exchange, Ltd.