

Mineral Industry Surveys

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LEAD IN MAY 2016

Domestic mine production (recoverable) of lead in May was 27,200 metric tons (t). Average daily mine production in May was 878 t, 13% less than that in the previous month. Lead mine production during the first 5 months of 2016 was 5% less than that during the same period in 2015 owing primarily to decreased production in Missouri. The Doe Run Company (St. Louis, MO) previously announced that it would reduce production of lead in concentrate at its mines in southeastern Missouri in 2016 by about 10%. (See Lead in November 2015.) Secondary refinery production of lead in May was slightly less than that in the previous month, and year-to-date production was essentially unchanged from that in the same period in 2015 (fig. 1, table 1).

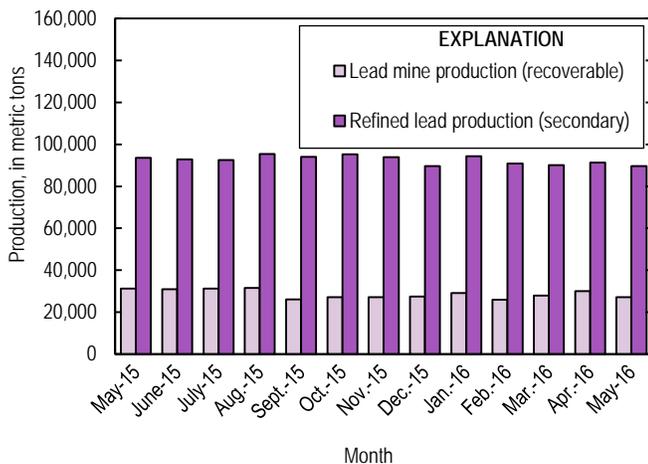


Figure 1. U.S. production of lead from May 2015 through May 2016. Source: U.S. Geological Survey.

Total imports of lead for consumption in May 2016 were slightly more than those in the previous month. During the first 5 months of 2016, imports were about 9% less than those during the same period of 2015. Year to date, Canada (53%), the Republic of Korea (22%), and Mexico (12%) accounted for the majority of imports of lead in pigs and bars (fig. 2, table 7).

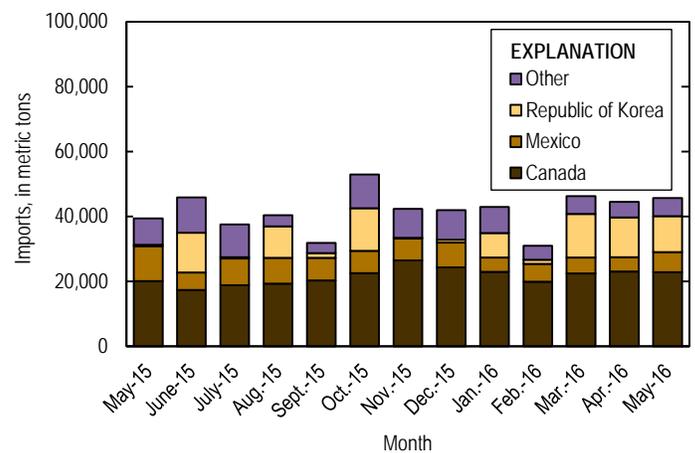


Figure 2. U.S. imports of lead in pigs and bars from May 2015 through May 2016. Source: U.S. Census Bureau.

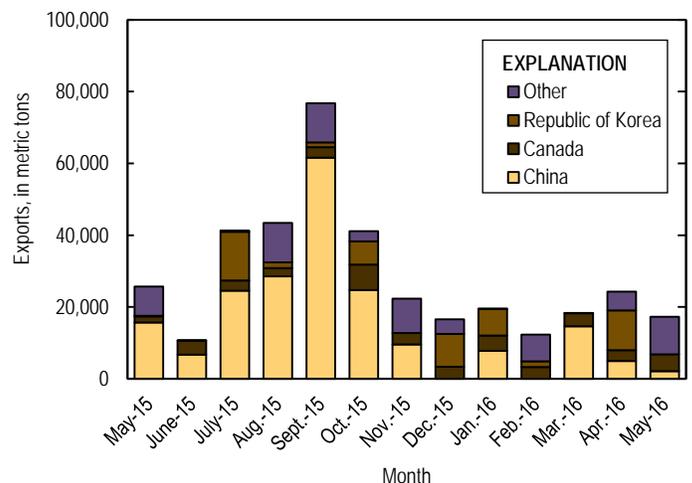


Figure 3. U.S. exports of lead in ore and concentrates from May 2015 through May 2016. Source: U.S. Census Bureau.

Total exports of lead, exclusive of scrap, in May 2016 were 15% less than those in the previous month owing primarily to a

29% decrease in exports of lead in ore and concentrates. Total lead exports during the first 5 months of 2016 were 18% less than those in the same period of 2015. China (32%), the Republic of Korea (22%), and Canada (20%) were the leading destinations for ore and concentrates during the first 5 months of 2016 (fig. 3, table 6). Exports of used lead-acid batteries for starting engines (in units) during the first 5 months were 39% less than those during the same period of 2015, the majority of which were exported to Canada and Mexico.

After decreasing significantly in April, the Platts Metals Week average North American Market price for lead in May 2016 was \$0.87 per pound and the London Metal Exchange, Ltd. (LME) cash price was \$0.78 per pound, essentially unchanged from those in the previous month and 13% and 14% less than those in May 2015, respectively (fig. 4). The Platts average U.S. used lead-acid batteries (Midwest) price in May 2016 increased for the fourth consecutive month and was \$0.33 per pound, 6% more than that in the previous month and 3% more than that in May 2015 (table 2). The majority of secondary lead is produced from used lead-acid batteries.

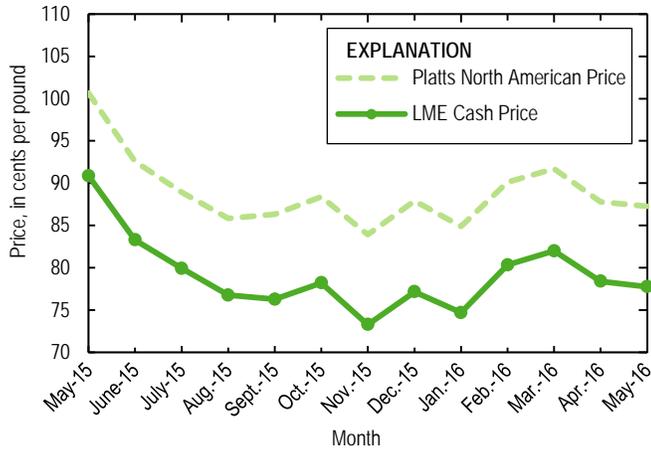


Figure 4. Average monthly prices for refined lead metal from May 2015 through May 2016. Source: Platts Metals Week.

Global LME lead stocks at the end of May 2016 were 185,375 t, a 6% increase (11,050 t) from stocks at the end of April 2016 and 16% more than those at the end of May 2015 (fig. 5).

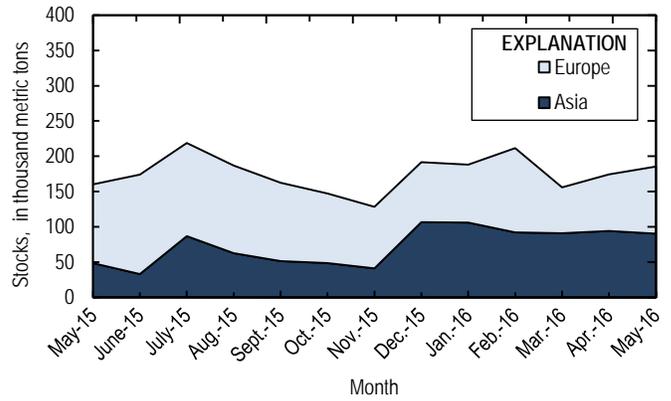


Figure 5. Global LME stocks of lead from May 2015 through May 2016. Source: London Metal Exchange, Ltd.

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TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2015 ^p		2016		
	January– December	January– May ²	April	May	January– May ²
Production:					
Mine (recoverable)	358,000	157,000	30,100 ^r	27,200	149,000
Secondary refinery:					
Reported by smelters/refineries	1,030,000	453,000	91,300	89,700	452,000
Estimated	9,740	4,580	922	906	4,570
Recovered from copper-base scrap ^e	15,000	6,250	1,250	1,250	6,250
Total secondary	1,050,000	464,000	93,500	91,900	463,000
Consumption of refined lead, apparent ^{e,3}	1,520,000	676,000	133,000	128,000	649,000
Stocks, end of period, consumers and secondary smelters	63,600	62,700	65,500	70,000	70,000
Imports for consumption:					
Bullion	343	326	--	--	--
Wrought and unwrought	523,000	230,000	44,500	45,700	210,000
Exports:					
Ore and concentrate	349,000	107,000	24,300	17,200	91,700
Bullion	596	84	77	(4)	529
Wrought and unwrought lead	58,800	25,600	2,690	5,830	16,900
TEL/TML preparations, based on lead compounds	724	339	18	17	165
Scrap (gross weight)	46,200	23,500	4,480	3,910	17,700
Platts Metals Week North American Market price (cents per pound)	91.20	96.09	87.79	87.27	88.36

^eEstimated. ^pPreliminary. ^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 plus stock change.

⁴Less than ½ unit.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American Market ¹	London Metal Exchange cash		Used lead-acid batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2015:				
May	100.66	90.87	2,003.42	32.13
June	92.57	83.28	1,836.03	33.60
July	88.94	79.92	1,762.00	32.88
August	85.83	76.77	1,692.49	31.13
September	86.32	76.27	1,681.56	30.30
October	88.41	78.21	1,724.18	31.00
November	83.92	73.28	1,615.54	29.63
December	87.92	77.15	1,700.87	28.00
January–December	91.20	81.02	1,786.08	31.48
2016:				
January	84.91	74.69	1,646.54	28.00
February	90.12	80.34	1,771.20	29.00
March	91.70	81.99	1,807.48	29.60
April	87.79	78.40	1,728.41	31.38
May	87.27	77.75	1,714.05	33.25
January–May	88.36	78.63	1,733.54	30.25

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 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN MAY 2016¹

(Metric tons, gross weight)

Item	Stocks	Net receipts	Consumption	Stocks
	April 30, 2016			May 31, 2016
Battery-lead	43,400 ^r	70,000	66,700	46,700
Other ²	22,100 ^r	47,200	46,000	23,300
Total	65,500 ^r	117,000	113,000	70,000
Percent change from preceding month ³	XX	XX	XX	XX

^rRevised. 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 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN MAY 2016¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	68,300	--	--
Remelt lead	W	--	W
Antimonial lead	18,100	W	W
Other ²	3,350	169	346
Total lead-base	89,700	169	346

W Withheld to avoid disclosing company proprietary data; included in "Other." -- 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 5
U.S. APPARENT CONSUMPTION OF LEAD¹

(Metric tons)

Period	Production	Imports ^{2,3}	Exports ^{2,3}	Stock change during period	Apparent consumption ⁴
2015: ^p					
May	84,700	39,400	4,490	(1,350)	121,000
June	82,500	45,800	4,180	(335)	125,000
July	79,800	37,600	3,720	(1,460)	115,000
August	82,700	40,400	4,320	6,200	113,000
September	83,600	31,900	4,230	2,430	109,000
October	84,800	52,900	6,450	(959)	132,000
November	81,300	42,400	5,010	(704)	119,000
December	78,900	41,900	5,970	(3,450)	118,000
January–December	1,050,000	523,000	55,900	(2,070)	1,520,000
2016:					
January	94,300	42,900	1,420	3,470	132,000
February	90,800	31,000	2,980	(1,070)	120,000
March	92,300	46,300	3,500	(671)	136,000
April	93,500	44,500	2,560	2,350	133,000
May	91,900	45,700	5,500	4,540	128,000
January–May	463,000	210,000	16,000	8,620	649,000

^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 plus stock change.

TABLE 6
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons unless otherwise specified)

	2015		2016		
	Year	January–May ²	April	May	January–May ²
Lead content:					
Ore and concentrates	349,000	107,000	24,300	17,200	91,700
Bullion	596	84	77	(3)	529
Wrought and unwrought lead	58,800	25,600	2,690	5,830	16,900
TEL/TML preparations, based on lead compounds	724	339	18	17	165
Total	409,000	133,000	27,100	23,100	109,000
Gross weight, scrap	46,200	23,500	4,480	3,910	17,700
Spent lead-acid batteries, used for starting engines (units)	25,900,000	12,300,000	1,610,000	1,350,000	7,560,000

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 7
U.S. IMPORTS FOR CONSUMPTION BY TYPE OF MATERIALS AND BY
COUNTRY OF ORIGIN¹

(Metric tons, lead content)

Material and country of origin	2015		2016		
	Year	January– May ²	April	May	January– May ²
Bullion:					
Mexico	203	185	--	--	--
Venezuela	46	46	--	--	--
Other	94	95	--	--	--
Total	343	326	--	--	--
Wrought and Unwrought:					
Australia	4,750	4,140	--	--	2,480
Brazil	--	--	1,020	301	3,550
Canada	251,000	102,000	23,000	22,900	111,000
Chile	989	--	213	227	672
China	1,250	(³)	--	273	273
Dominican Republic	50	50	--	--	--
Ecuador	12,400	4,610	346	294	2,410
France	79	--	--	--	--
Germany	9,630	4,940	--	--	1,230
India	21,700	9,530	1,950	1,310	7,210
Indonesia	1,050	1,050	--	--	--
Israel	1,180	727	--	--	--
Kazakhstan	22,900	12,800	--	--	538
Korea, Republic of	57,300	19,300	12,200	11,100	45,500
Mexico	111,000	61,300	4,440	6,190	25,500
Netherlands	6,020	--	--	--	--
Nigeria	522	--	--	--	--
Panama	848	--	--	--	300
Russia	10,700	5,750	849	1,510	5,990
Spain	1,650	59	59	--	634
Sri Lanka	1,290	294	200	--	850
Ukraine	275	275	--	--	--
United Kingdom	2,560	1,570	--	97	191
Venezuela	3,930	2,130	80	114	430
Other	79	--	150	1,480	1,650
Total	523,000	230,000	44,500	45,700	210,000
Grand total	524,000	231,000	44,500	45,700	210,000

-- Zero.

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

²May include revisions to previously published data.

³Less than ½ unit.

Source: U.S. Census Bureau.