

Mineral Industry Surveys

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LEAD IN OCTOBER 2015

Domestic mine production (recoverable) of lead in October was 27,100 metric tons (t). Average daily mine production in October was 873 t, essentially unchanged from that in September. Lead mine production during the first 10 months of 2015 was essentially unchanged from that during the same period in 2014. Secondary refinery production of lead in October was slightly greater than that of the previous month and, year-to-date, production was essentially unchanged from that in the same period in 2014 (fig. 1).

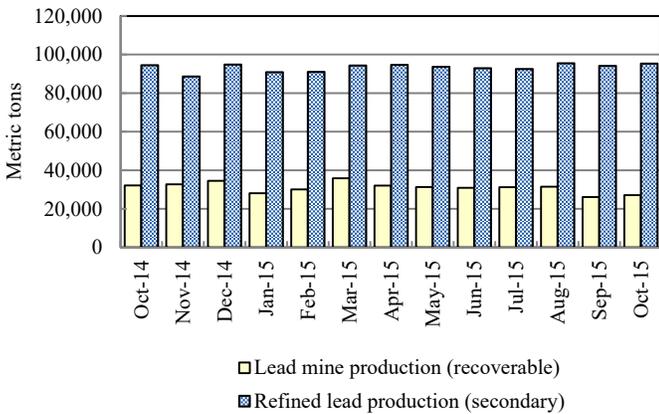


Figure 1. U.S. production of lead from October 2014 through October 2015. Source: U.S. Geological Survey.

Total imports of lead for consumption in October 2015 were 66% more than those in the previous month owing primarily to an 11,800-t increase in imports of lead in pigs and bars from the Republic of Korea, and increases from Canada (2,280 t) and India (4,170 t). Imports of lead in pigs and bars during the first 10 months of 2015 were 11% less than those during the same period in 2014 owing to declines in imports from Canada (20,400 t), Kazakhstan (31,300 t), Peru (49,700 t), and Russia (5,070 t) that were partially offset by increased imports from Australia (3,960 t), Germany (8,170 t), India (7,740 t), the Republic of Korea (25,100 t), and the Netherlands (5,420 t). During the first 10 months of 2015, Canada (46%), Mexico

(22%), and the Republic of Korea (13%) accounted for the majority of imports of lead in pigs and bars (fig. 2).

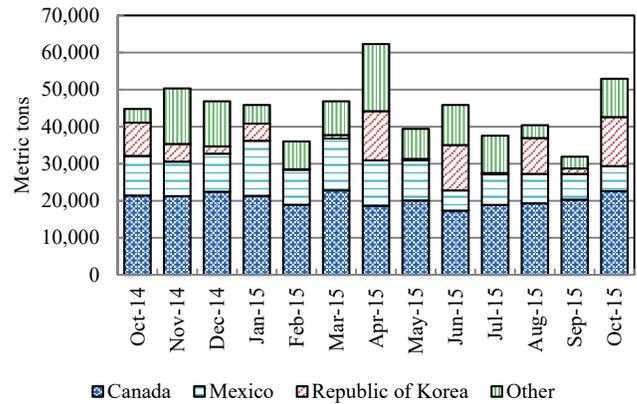


Figure 2. U.S. imports of lead in pigs and bars from October 2014 through October 2015. Source: U.S. Census Bureau.

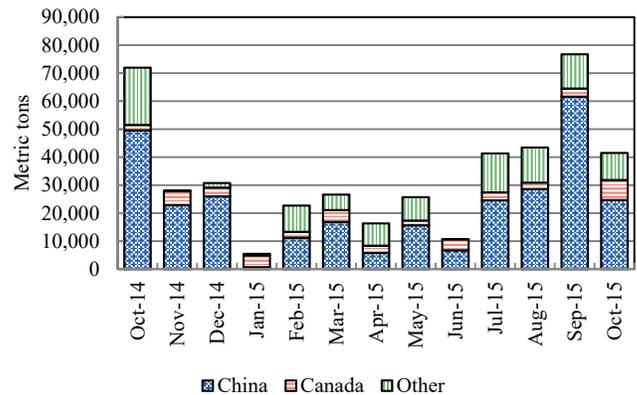


Figure 3. U.S. exports of lead in ore and concentrates from October 2014 through October 2015. Source: U.S. Census Bureau.

Total exports of lead, exclusive of scrap, in October 2015 were 41% less than those in the previous month owing to a 46% decrease in exports of lead in ore and concentrates. During the

first 10 months of 2015, exports of lead in ore and concentrates were 4% greater than those in the same period in 2014, and China (63%) and Canada (11%) were the leading destinations (fig. 3).

The Platts Metals Week average North American Market price for lead in October 2015 was \$0.88 per pound, slightly more than that in the previous month but 14% less than that in October 2014. During the first 10 months of 2015, the Platts Metal Week North American Market price averaged \$0.92 per pound, 14% less than during the same period in 2014. The London Metal Exchange, Ltd. (LME) cash price of lead in October 2015 averaged \$0.78 per metric ton, a slight increase from that of the previous month but 15% less than that in October 2014. The slight increase in the LME price in October 2015 was the first price increase since prices began trending downward in April. During the first 10 months of 2015, the average LME cash price for lead was \$0.82 per pound, 14% less than during the same period in 2014. The Platts average U.S. used lead-acid batteries price in October 2015 was \$0.31 per pound, slightly more than that in the previous month but 19% less than that in October 2014 (fig. 4). The majority of secondary lead is produced from recycling used lead-acid batteries.

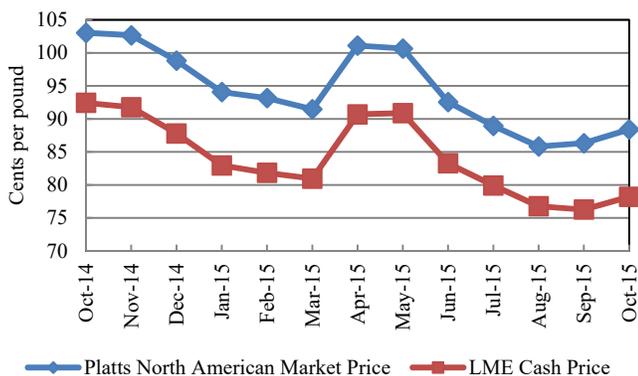


Figure 4. Average monthly prices for refined lead metal from October 2014 through October 2015. Source: Platts Metals Week.

Global LME lead stocks at the end of October 2015 were 147,225 t, a 9% decrease (15,200 t) from the end of September 2015 and 35% less than those at the end of October 2014 (fig. 5).

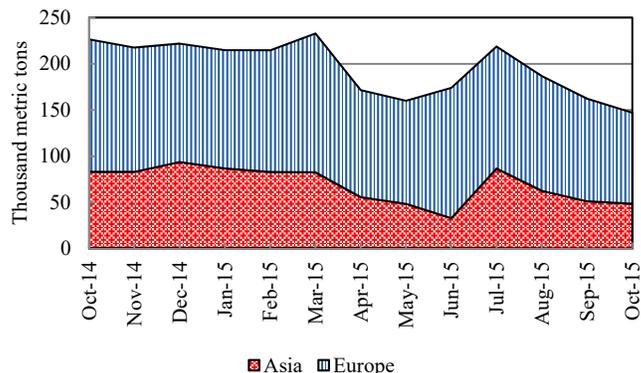


Figure 5. Global LME stocks of lead from October 2014 through October 2015. Source: London Metal Exchange, Ltd.

In early October, the International Lead and Zinc Study Group (ILZSG) released its lead market projections for 2015 and 2016. ILZSG forecast that lead mine production would decrease slightly in 2015 to 4.80 million metric tons (Mt) owing primarily to a 13% decrease in production in Australia. In 2016, mine production was expected to increase slightly to 4.86 Mt owing to increases in China, Mexico, and Russia that would be partially offset by declines in Australia and Ireland. Global refined lead metal production was expected to decrease slightly in 2015 to 10.83 Mt owing to decreased production in China and Peru. In 2016, refined lead production was expected to increase by about 3% to 11.20 Mt owing to increases in Belgium, China, India, Italy, and the Republic of Korea.

ILZSG forecast lead metal consumption would decline slightly in 2015 to 10.82 Mt and then increase to 11.11 Mt in 2016. The decline in consumption in 2015 was partially attributed to a slowdown in production and sales of battery-powered electric bicycles in China. ILZSG forecast that global lead metal production and consumption would be essentially equal in 2015, but production would exceed consumption by 97,000 t in 2016 (International Lead and Zinc Study Group, 2015).

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Reference Cited

International Lead and Zinc Study Group, 2015, ILZSG session/forecasts: Lisbon, Portugal, International Lead and Zinc Study Group news release, October 9, 5 p. (Accessed October 9, 2015, via http://www.ilzsg.org/generic/pages/file.aspx?file_id=1716).

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATE¹

(Metric tons, lead content, unless otherwise specified)

	2014 ^P		2015		
	January– December	January– October ²	September	October	January– October ²
Production:					
Mine (recoverable)	372,000	304,000	26,100	27,100	304,000
Secondary refinery:					
Reported by smelters/refineries	1,100,000	926,000	94,100	95,300	917,000
Estimated	11,200	9,350	951	962	9,260
Recovered from copper-base scrap ^c	15,000	12,500	1,250	1,250	12,500
Total secondary	1,130,000	947,000	96,300	97,500	939,000
Consumption of refined lead, apparent ^{e,3}	1,670,000	1,380,000	121,000	132,000	1,320,000
Stocks, end of period, consumers and secondary smelters	66,300	63,200	69,500	81,800	81,800
Imports for consumption:					
Base bullion	1,180	471	--	--	343
Pigs and Bars	596,000	496,000	31,900	52,900	439,000
Exports:					
Ore and concentrate	357,000	298,000	76,700	41,100	310,000
Bullion	963	963	81	83	477
Wrought and unwrought lead	55,300	50,900	4,500	6,730	47,400
TEL/TML preparations, based on lead compounds	11,600	838	16	25	568
Scrap (gross weight)	36,300	30,500	2,360	3,490	38,900
Platts Metals Week North American Market price (cents per pound)	106.17	107.26	86.32	88.41	92.25

^cEstimated. ^PPreliminary. -- 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.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American Market ¹	London Metal Exchange cash		Used lead-acid batteries ²
	¢/lb	¢/lb	\$/t	¢/lb
2014:				
October	103.04	92.43	2,037.70	38.13
November	102.66	91.77	2,023.08	37.38
December	98.82	87.80	1,935.64	37.70
January–December	106.17	95.04	2,095.26	38.95
2015:				
January	94.07	82.95	1,828.83	34.50
February	93.16	81.83	1,804.13	32.13
March	91.47	80.95	1,784.55	31.00
April	101.11	90.69	1,999.35	31.50
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
January–October	92.25	82.17	1,811.65	32.02

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 OCTOBER 2015¹

(Metric tons, gross weight)

Item	Stocks		Consumption	Stocks
	September 31, 2015	Net receipts		October 31, 2015
Battery-lead	44,100	87,000	86,600	44,500
Other ²	4,160	2,290	2,310	4,140
Total	48,200	89,300	88,900	48,600
Percent change from preceding month ³	XX	-0.2	-2.7	+0.9

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 OCTOBER 2015¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	72,800	--	--
Remelt lead	W	--	W
Antimonial lead	19,300	--	W
Other ²	3,160	172	353
Total lead-base	95,300	172	353

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 ²	Imports ^{3,4}	Exports ^{3,4}	Stock change during period	Apparent consumption ⁵
2014: ^P					
October	94,400	45,000	5,410	143	134,000
November	88,600	50,500	4,650	(3,180)	138,000
December	94,800	47,000	4,140	(30)	138,000
January–December	1,130,000	593,000	55,300	(3,279)	1,670,000
2015:					
January	90,800	45,800	3,730	(1,280)	134,000
February	91,000	36,000	4,420	(1,180)	124,000
March	94,300	46,800	4,610	(506)	137,000
April	94,600	62,300	4,820	539	151,000
May	93,600	39,400	4,490	(1,360)	130,000
June	92,900	45,800	4,180	(326)	135,000
July	92,500	37,600	3,720	(1,640)	128,000
August	95,400	40,400	4,320	6,180	125,000
September	96,300	31,900	4,230	2,610	121,000
October	97,500	52,900	6,450	12,300	132,000
January–October	939,000	439,000	45,000	15,300	1,320,000

^PPreliminary.

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

²Monthly data include secondary refined lead.

³Import 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.

⁴Source: U.S. Census Bureau.

⁵Smelter 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)

	2014		2015		
	Year	January– October ²	September	October	January– October ²
Lead content:					
Ore and concentrates	357,000	298,000	76,700	41,100	310,000
Bullion	963	963	81	83	477
Wrought and unwrought lead	55,300	50,900	4,500	6,730	47,400
TEL/TML preparations, based on lead compounds	11,600	838	16	25	568
Total	425,000	351,000	81,300	48,000	359,000
Gross weight, scrap	36,300	30,500	2,360	3,490	38,900
Spent lead-acid batteries, used for starting engines (units)	30,200,000	25,400,000	1,910,000	1,920,000	23,200,000

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

(Metric tons, lead content)

Material and country of origin	2014		2015		
	Year	January– October ²	September	October	January– October ²
Base bullion:					
Canada	45	45	--	--	--
Mexico	577	302	--	--	203
Panama	434	--	--	--	--
Venezuela	125	124	--	--	46
Other	--	--	--	--	94
Total	1,180	471	--	--	343
Pigs and bars:					
Australia	787	787	--	--	4,750
Belgium	347	--	--	--	--
Cameroon	96	--	--	--	--
Canada	266,000	221,000	20,300	22,600	200,000
Chile	3,160	3,140	--	--	--
China	59	23	--	388	802
Dominican Republic	438	340	--	--	50
Ecuador	9,030	7,510	850	1,500	10,100
France	1,560	522	--	22	22
Germany	191	--	1	494	8,170
Ghana	285	--	--	--	--
India	10,300	9,440	843	5,010	17,200
Indonesia	134	--	--	--	1,050
Israel	3,020	2,390	--	--	1,180
Italy	822	--	--	--	--
Jordan	53	--	--	--	--
Kazakhstan	59,900	48,700	520	1,100	17,500
Korea, Republic of	38,600	31,200	1,450	13,200	56,200
Malaysia	124	--	--	--	--
Mexico	120,000	100,000	6,950	6,780	96,700
Netherlands	--	--	101	--	5,420
Nigeria	--	--	--	--	522
Panama	800	796	--	--	400
Peru	49,700	49,700	--	--	--
Poland	75	--	--	--	--
Russia	18,400	15,400	422	951	10,300
Spain	5,420	--	317	238	1,190
Sri Lanka	740	740	--	200	1,090
Sweden	728	--	--	--	--
Ukraine	--	--	--	--	275
United Kingdom	3,770	3,320	117	363	2,560
Venezuela	960	731	22	--	3,170
Other	--	-- ^r	--	79	79
Total	596,000	496,000	31,900	52,900	439,000
Grand total	597,000	496,000^r	31,900	52,900	439,000

^rRevised. -- 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.