

# Mineral Industry Surveys

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## LEAD IN SEPTEMBER 2013

Domestic mine production (recoverable) of lead in September was 29,600 metric tons (t). Average daily mine production in September was 987 t, 6% greater than that in August. Year-to-date lead mine production was essentially unchanged from that during the same period in 2012. Secondary refinery production of lead in September was essentially unchanged from that of the previous month, and year-to-date production was also essentially unchanged from that of the same period in 2012.

Total imports of lead for consumption in September 2013 increased by 26% from those in the previous month owing to increased refined lead imports from Canada and Mexico, and year-to-date imports were 69% greater than during the same period in 2012. The increase was partially attributed to lead consumers and traders accumulating lead stocks in anticipation of the planned closure at yearend of Doe Run Resources Corp.'s (St. Louis, MO) primary lead smelter in Herculaneum, MO. Total exports of lead, exclusive of scrap, in September increased by 31% from those in the previous month, and year-to-date exports were 33% more than those in the corresponding period of 2012.

The Platts Metals Week average North American producer price for lead in September 2013 was \$1.15 per pound, essentially unchanged from that in the previous month and that in September 2012. The London Metal Exchange Ltd. (LME)

cash price of lead in September 2013 averaged \$2,088 per metric ton, 4% less than that of the previous month and 4% less than that in September 2012. The Platts average U.S. used lead-acid batteries price in September 2013 was \$0.356 per pound, a 6% decrease from that in August. Global LME lead stocks at the end of September 2013 were 239,350 t (10,000 t in domestic warehouses), 29% more than those at the end of August.

### Update

The Battery Council International reported that 104.2 million lead-acid automotive batteries were shipped by North American producers during the first 10 months of 2013, about 301,000 more batteries shipped than during the same period in 2012. Shipments of replacement lead-acid automotive batteries (88.1 million) were essentially unchanged and shipments of original equipment lead-acid automotive batteries (16.1 million) increased by 8% from those of the same period in 2012 (Battery Council International, 2013, p. 19–20).

### Reference Cited

Battery Council International, 2013, BCI 2013 monthly shipment report: Chicago, IL, Battery Council International, December 5, 20 p.

TABLE 1  
SALIENT LEAD STATISTICS IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content, unless otherwise specified)

	2012 <sup>p</sup>		2013		
	January– December	January– September	August	September	January– September
<b>Production:</b>					
Mine (recoverable)	336,000	251,000	28,700 <sup>r</sup>	29,600	249,000
<b>Secondary refinery:</b>					
Reported by smelters/refineries	1,170,000	872,000	97,900	97,200	873,000
Estimated	11,700	8,780	979	972	8,730
Recovered from copper-base scrap <sup>e</sup>	15,000	11,300	1,250	1,250	11,300
Total secondary	1,190,000	892,000	100,000	99,500	893,000
<b>Consumption:</b>					
Reported	1,470,000	1,110,000	114,000	113,000	1,040,000
Undistributed <sup>c</sup>	38,600	33,200	3,430	3,400	31,600
Total	1,510,000	1,140,000	118,000	117,000	1,070,000
Stocks, end of period, consumers and secondary smelters	57,500	63,400	81,400	76,000	76,000
<b>Imports for consumption:</b>					
Base bullion	1,020	714	43	189	1,810
Refined metal	349,000	228,000	32,900	41,300	386,000
<b>Exports:</b>					
Ore and concentrate	214,000	102,000	29,500	39,900	151,000
Bullion	72	72	--	--	349
Wrought and unwrought lead	53,300	40,900	4,180	4,420	38,600
TEL/TML preparations, based on lead compounds	1,730	1,320	129	98	1,290
Scrap (gross weight)	25,900	18,200	3,670	2,780	26,500
Platts Metals Week North American producer price (cents per pound)	114.16	113.89	114.88	114.56	114.80

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

	North American <sup>1</sup>	London Metal Exchange cash		Used lead-acid batteries <sup>2</sup>
	¢/lb	¢/lb	\$/t	¢/lb
<b>2012:</b>				
September	114.63	98.38	2,168.91	NA
October	114.81	97.66	2,152.96	NA
November	114.91	98.84	2,179.08	38.75
December	115.26	103.18	2,274.83	37.25
January–December	114.16	108.92	2,061.94	NA
<b>2013:</b>				
January	115.51	106.13	2,339.84	38.40
February	115.63	107.76	2,375.80	39.75
March	114.92	99.02	2,183.06	39.25
April	114.35	92.07	2,029.80	38.40
May	114.35	91.98	2,027.86	38.25
June	114.62	95.41	2,103.44	38.75
July	114.42	92.89	2,047.90	37.80
August	114.88	98.56	2,172.86	37.75
September	114.56	94.71	2,088.00	36.63
January–September	114.80	97.61	2,152.06	38.33

NA Not available.

<sup>1</sup>Platts Metals Week North American Producer price.

<sup>2</sup>Platts 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 SEPTEMBER 2013<sup>1</sup>

(Metric tons, gross weight)

Item	Stocks	Net	Consumption	Stocks
	August 31, 2013	receipts		September 30, 2013
Battery-lead	41,400	85,400	86,000	40,900
Other <sup>2</sup>	4,070	2,260	2,340	4,000
Total	45,500	87,700	88,300	44,900
Percent change from preceding month <sup>3</sup>	XX	-8.0	-7.0	-0.01

XX Not applicable.

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

<sup>2</sup>Includes soft lead, solder, drosses and residues, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

<sup>3</sup>Based on unrounded data; preceding monthly data may have been revised.

TABLE 4  
LEAD, TIN, AND ANTIMONY RECOVERED FROM  
LEAD-BASE SCRAP IN SEPTEMBER 2013<sup>1</sup>

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	64,500	--	--
Remelt lead	W	--	--
Antimonial lead	29,400	W	W
Other <sup>2</sup>	3,400	153	269
Total lead-base	97,200	153	269

W Withheld to avoid disclosing company proprietary data; included in "Other." -- Zero.

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

<sup>2</sup>Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5  
CONSUMPTION OF LEAD IN THE UNITED STATES<sup>1</sup>

(Metric tons, lead content)

Use	2012 <sup>p</sup>		2013		
	January– December	January– September	August	September	January– September
<b>Metal products:</b>					
Ammunition, shot and bullets	69,100	53,300	7,070	6,750	60,600
Brass and bronze, billet and ingots	3,400	2,550	311	311	2,700
Cable covering, power and communication and caulking lead, building construction	3,800	3,110	160	160	1,580
Casting metals	11,600	8,870	1,340	1,340	10,500
Sheet lead, pipes, traps and other extruded products	27,600	21,200	1,060	958	10,800
Solder	6,370	4,780	534	534	4,850
Storage batteries, including oxides	1,300,000	981,000	99,600	99,100	915,000
Terne metal, type metal, and other metal products <sup>2</sup>	14,800	11,100	1,230	1,230	10,800
Total metal products	1,440,000	1,090,000	111,000	110,000	1,020,000
Other oxides and miscellaneous	31,700	23,200	2,950	2,960	22,600
Total reported	1,470,000	1,110,000	114,000	113,000	1,040,000
Undistributed <sup>c</sup>	38,600	33,200	3,430	3,400	31,600
Grand total	1,510,000	1,140,000	118,000	117,000	1,070,000

<sup>c</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>2</sup>Includes lead consumed in bearing metals, foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

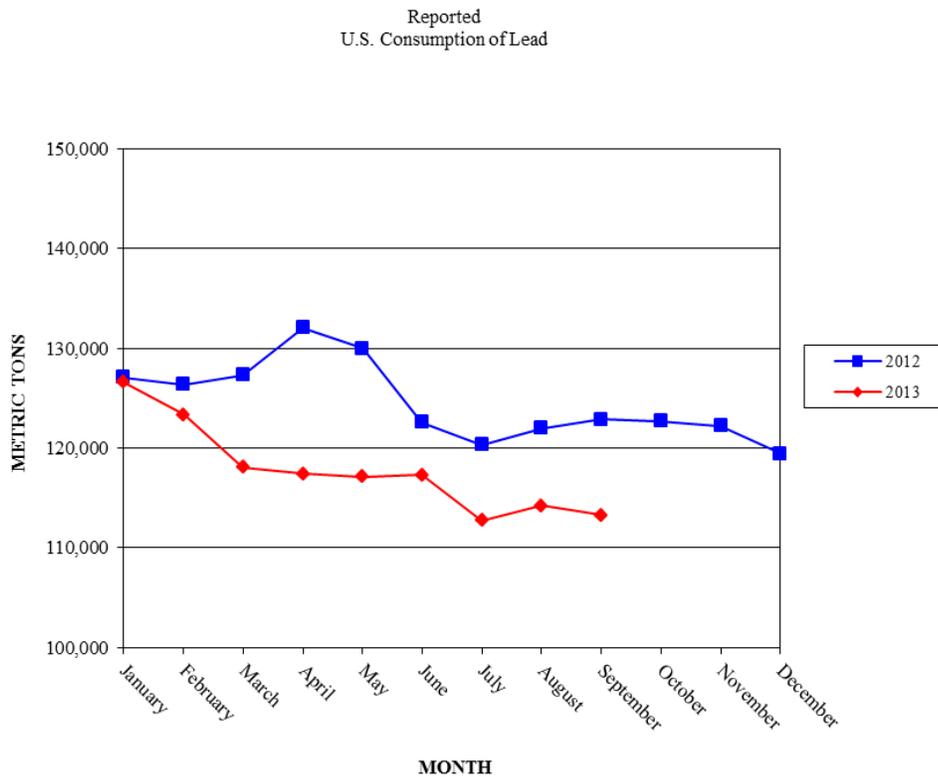


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD  
IN SEPTEMBER 2013<sup>1</sup>

(Metric tons, lead content)

Type of material	Stocks		Net receipts	Consumption	Stocks September 30, 2013
	August 31, 2013				
Soft lead	59,100		66,000	72,600	52,500
Antimonial lead	20,600		26,300	25,100	21,700
Other <sup>2</sup>	1,740		15,600	15,600	1,740
Total	81,400		108,000	113,000	76,000

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

<sup>2</sup>Includes copper-based scrap, and lead alloys.

TABLE 7  
U.S. EXPORTS OF LEAD, BY CLASS<sup>1</sup>

(Metric tons unless otherwise specified)

	2012		2013		
	January–December	January–September	August	September	January–September
Lead content:					
Ore and concentrates	214,000	102,000	29,500	39,900	151,000
Bullion	72	72	--	--	349
Wrought and unwrought lead	53,300	40,900	4,180	4,420	38,600
TEL/TML preparations, based on lead compounds	1,730	1,320	129	98	1,290
Total	269,000	144,000	33,800	44,500	191,000
Gross weight, scrap	25,900	18,200	3,670	2,780	26,500
Spent lead-acid batteries, used for starting engines (units)	22,700,000	17,200,000	2,290,000	2,300,000	19,300,000

-- Zero.

<sup>1</sup>Data are rounded to more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION BY TYPE OF MATERIALS AND BY  
COUNTRY OF ORIGIN<sup>1</sup>

(Metric tons, lead content)

Material and country of origin	2012		2013		
	January–December	January–September	August	September	January–September
Ore, matte, etc; Canada	1,530	1,530	--	18	18
Base bullion:					
Mexico	695	695	--	--	148
Venezuela	327	19	43	189	1,660
Total	1,020	714	43	189	1,810
Pigs and bars:					
Australia	24,300	--	--	--	46,600
Canada	240,000	179,000	19,900	23,700	200,000
China	5,000	5,000	--	--	--
Mexico	56,100	35,900	6,530	11,100	80,300
Other	23,200	7,340	6,480	6,490	59,700
Total	349,000	228,000	32,900	41,300	386,000
Grand total	352,000	230,000	32,900	41,600	388,000

-- Zero.

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

Source: U.S. Census Bureau.