

# Mineral Industry Surveys

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## LEAD IN APRIL 2013

Domestic mine production (recoverable) of lead in April was 28,600 metric tons (t). Average daily mine production in April was 952 t, 10% more than that in March. Year-to-date lead mine production was 4% less than during the same period in 2012 owing to a decline in production from lead-producing mines in Alaska and Missouri that offset production increases in Idaho. Secondary refinery production of lead in April decreased by 5% from that of the previous month, and year-to-date production was essentially unchanged from that of the same period in 2012.

Although total imports of lead for consumption in April 2013 decreased by 19% from those in the previous month, year-to-date imports were 91% greater than during the same period in 2012. The increase was partially attributed to lead consumers and traders accumulating lead stocks in anticipation of Doe Run Resources Corp.'s (St. Louis, MO) planned closure of its primary lead smelter-refinery in Herculaneum, MO, at yearend. Total exports of lead, exclusive of scrap, in April were about four times greater than those in the previous month owing to increased exports of lead contained in ore and concentrate, the majority of which was sent to Italy. Increased exports to Italy coincided with the ramp up of the lead operations at Glencore International AG's (Baar, Switzerland) Portovesme lead and zinc smelter in Sardinia in February. Exports of spent lead-acid batteries increased by 44% in April compared with those in March owing primarily to increased exports to Mexico. About 92% of the 8.27 million spent lead-acid batteries that were exported during the first 4 months of 2013 were sent to Mexico for recycling.

The Platts Metals Week average North American producer price for lead in April 2013 was \$1.14 per pound, slightly less than that of the previous month and essentially unchanged from that in April 2012. The London Metal Exchange Ltd. (LME) cash price of lead in April 2013 averaged \$2,030 per metric ton, 7% less than that of the previous month and slightly less than that in April 2012. The Platts average U.S. used lead-acid batteries price in April 2013 was \$0.38 per pound, 2% less than

that in March. Global LME lead stocks at the end of April 2013 were 254,325 t, 3% less than those at the end of March.

### Update

In early June, Exide Technologies, Inc. (Milton, GA), a leading producer of secondary lead and lead-acid batteries, filed for Chapter 11 bankruptcy protection owing to financial difficulties related to growing debts and declining revenue. Exide has filed for bankruptcy protection twice during the past 11 years. In its current filing, the company listed its total assets at \$1.9 billion, with total debt at \$1.1 billion. Exide arranged a \$500 million bankruptcy loan from J.P. Morgan Chase and Co. to fund its restructuring. The Chapter 11 filing only affected Exide's U.S. operations. The company cited increasing production costs and intense competition as factors that led to the bankruptcy filing. Exide mentioned the loss of a key customer, Wal-Mart Stores Inc., to competitor Johnson Controls, Inc. (JCI) as a major reason for the bankruptcy filing. Walmart designated JCI as its sole lead-acid battery supplier in 2010, resulting in about \$160 million of lost annual revenue for Exide. The company also was forced by the California Department of Toxic Substances Control to close its Vernon, CA, secondary smelter in April, resulting in a loss of \$24 million in projected earnings. Exide planned to continue to produce lead-acid batteries and secondary lead during the restructuring period and did not have plans to close any facilities. Bankruptcy lenders were giving Exide 6 months to develop an acceptable business plan and 9 months to file a restructuring plan that they would approve (Brinkley and Glazer, 2013).

### Reference Cited

Brinkley, Peg, and Glazer, Emily, 2013, Exide files for bankruptcy amid debts, retail losses: *The Wall Street Journal*, June 11, p. B3.

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– April	March	April	January– April
<b>Production:</b>					
Mine (recoverable)	336,000	111,000	26,000 <sup>r</sup>	28,600	107,000
<b>Secondary refinery:</b>					
Reported by smelters/refineries	1,170,000	387,000	98,900	92,900	387,000
Estimated	11,700	3,870	989	929	3,870
Recovered from copper-base scrap <sup>c</sup>	15,000	5,000	1,250	1,250	5,000
Total secondary	1,190,000	396,000	100,000	95,100	396,000
<b>Consumption:</b>					
Reported	1,470,000	471,000 <sup>r</sup>	115,000 <sup>r</sup>	115,000	472,000
Undistributed <sup>c</sup>	38,600	14,100 <sup>r</sup>	3,440 <sup>r</sup>	3,440	14,200
Total	1,510,000	485,000 <sup>r</sup>	118,000 <sup>r</sup>	118,000	486,000
Stocks, end of period, consumers and secondary smelters	57,500	54,900	83,100	84,900	84,900
<b>Imports for consumption:</b>					
Base bullion	1,020	270	248	58	1,350
Refined metal	349,000	109,000	55,200	45,000	207,000
<b>Exports:</b>					
Ore and concentrate	214,000	35,600	1,990	15,900	40,100
Bullion	72	72	--	207	301
Wrought and unwrought lead	53,300	16,100	2,740	4,080	15,200
TEL/TML preparations, based on lead compounds	1,730	502	46	223	651
Scrap (gross weight)	25,900	8,840	3,340	2,460	11,500
Platts Metals Week North American producer price (cents per pound)	121.70	114.13	114.92	114.35	115.10

<sup>c</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>				
April	114.03	93.56	2,062.67	NA
May	113.81	90.65	1,998.51	NA
June	113.26	84.12	1,854.42	NA
July	113.34	85.09	1,875.97	NA
August	113.42	85.97	1,895.42	NA
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	121.70	108.92	2,401.20	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
January–April	115.10	101.25	2,232.13	38.95

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<sup>1</sup>

(Metric tons, gross weight)

Item	Stocks	Net receipts	Consumption	Stocks
	March 31, 2013			April 30, 2013
Battery-lead	37,700	126,000	124,000	39,600
Other <sup>2</sup>	5,370	2,490	2,400	5,450
Total	43,000	128,000	126,000	45,000
Percent change from preceding month <sup>3</sup>	XX	+2.2	-0.5	+4.6

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 APRIL 2013<sup>1</sup>

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	72,600	--	--
Remelt lead	W	--	--
Antimonial lead	18,900	W	W
Other <sup>2</sup>	1,470	156	286
Total lead-base	92,900	156	286

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– April	March	April	January– April
<b>Metal products:</b>					
Ammunition, shot and bullets	69,100	23,600	7,570	6,870	27,000
Brass and bronze, billet and ingots	3,400	683 <sup>r</sup>	311	311	1,150
Cable covering, power and communication and caulking lead, building construction	3,800	1,960 <sup>r</sup>	195	195	780
Casting metals	11,600	3,510 <sup>r</sup>	920	920	3,790
Sheet lead, pipes, traps and other extruded products	27,600	8,340 <sup>r</sup>	1,460	1,400	5,670
Solder	6,370	2,160 <sup>r</sup>	547	547	2,180
Storage batteries, including oxides	1,300,000	416,000 <sup>r</sup>	100,000 <sup>r</sup>	101,000	418,000
Terne metal, type metal, and other metal products <sup>2</sup>	14,800	5,460 <sup>r</sup>	1,230	1,230	4,700
<b>Total metal products</b>	<b>1,440,000</b>	<b>462,000<sup>r</sup></b>	<b>112,000<sup>r</sup></b>	<b>112,000</b>	<b>463,000</b>
Other oxides and miscellaneous	31,700	9,550	2,270	2,340	9,290
<b>Total reported</b>	<b>1,470,000</b>	<b>471,000<sup>r</sup></b>	<b>115,000<sup>r</sup></b>	<b>115,000</b>	<b>472,000</b>
Undistributed <sup>c</sup>	38,600	14,100 <sup>r</sup>	3,440 <sup>r</sup>	3,440	14,200
<b>Grand total</b>	<b>1,510,000</b>	<b>485,000<sup>r</sup></b>	<b>118,000<sup>r</sup></b>	<b>118,000</b>	<b>486,000</b>

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

<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.

U.S. Consumption of Lead

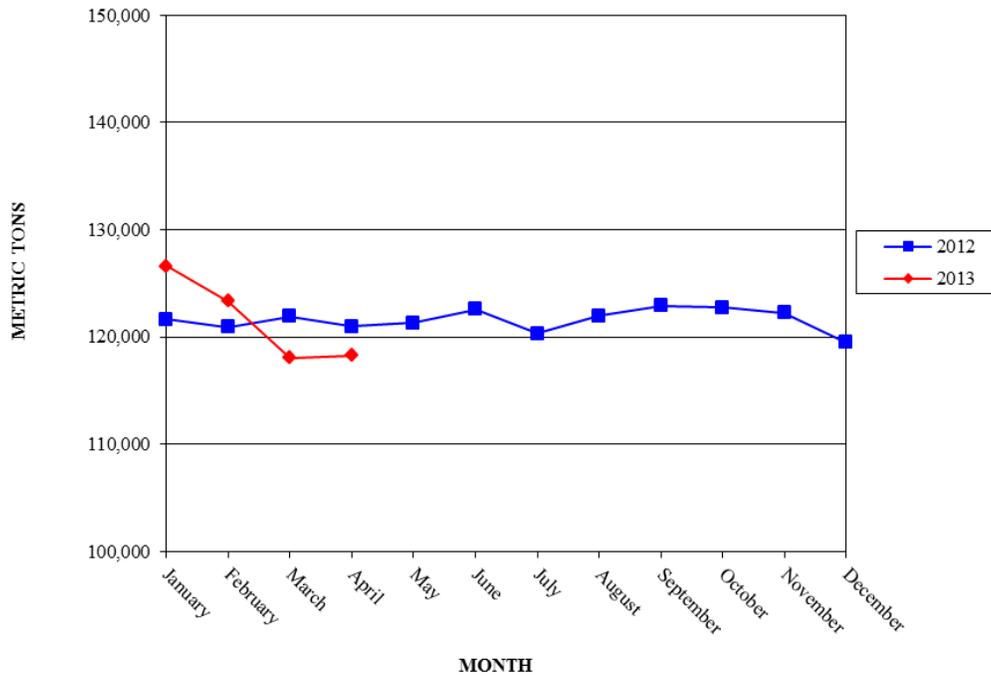


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD<sup>1</sup>

(Metric tons, lead content)

Type of material	Stocks March 31, 2013	Net receipts	Consumption	Stocks April 30, 2013
Soft lead	58,100	72,200	68,200	62,100
Antimonial lead	23,500	28,900	31,100	21,400
Other <sup>2</sup>	1,490 <sup>r</sup>	15,500	15,500	1,490
Total	83,100	117,000	115,000	84,900

<sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits.

<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– April	March	April	January– April
Lead content:					
Ore and concentrates	214,000	35,600	1,990	15,900	40,100
Bullion	72	72	--	207	301
Wrought and unwrought lead	53,300	16,100	2,740	4,080	15,200
TEL/TML preparations, based on lead compounds	1,730	502	46	223	651
Total	269,000	52,300	4,780	20,400	56,200
Gross weight, scrap	25,900	8,840	3,340	2,460	11,500
Spent lead-acid batteries, used for starting engines (units)	22,700,000	7,810,000	1,760,000	2,530,000	8,270,000

-- 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– April	March	April	January– April
Ore, matte, etc; Canada	1,530	--	--	--	--
<b>Base bullion:</b>					
Mexico	695	270	--	--	148
Venezuela	327	--	248	58	1,200
<b>Total</b>	<b>1,020</b>	<b>270</b>	<b>248</b>	<b>58</b>	<b>1,350</b>
<b>Pigs and bars:</b>					
Australia	24,300	--	2,020	--	46,600
Canada	240,000	81,100	20,200	31,500	92,200
China	5,000	5,000	--	--	--
Mexico	56,100	19,300	13,400	9,090	35,300
Other	23,200	3,640	19,700	4,400	33,000
<b>Total</b>	<b>349,000</b>	<b>109,000</b>	<b>55,200</b>	<b>45,000</b>	<b>207,000</b>
<b>Grand total</b>	<b>352,000</b>	<b>109,000</b>	<b>55,500</b>	<b>45,000</b>	<b>208,000</b>

-- 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.