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Mineral Industry Surveys

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LEAD IN AUGUST 2009

Domestic mine production (recoverable) of lead in August was 35,800 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in August was 1,160 t, up 20% from that in July 2009. Secondary refinery production of lead increased slightly from that of the previous month. Secondary refinery production through August 2009 was 5% lower than that in the corresponding period of 2008.

Total imports of lead for consumption through July 2009 were about 22% lower than those in the same period of 2008. Canada (78%) and Mexico (19%) were the principal sources of imported refined lead through July 2009. Total exports of lead, exclusive of scrap, in July 2009 were 340% greater than those in the previous month owing to an increase in shipments of lead ore and concentrates. Through the first half of the year, monthly exports of lead ore and concentrate have fluctuated significantly. China and Canada have been the leading destinations for exported ore and concentrate through July 2009. Exports of lead scrap in July 2009 decreased by 7% from those in the previous month.

According to Platts Metals Week, the average North American producer price for lead in August 2009 was $0.95 per pound, up 9% from that of the previous month and 13% lower than that in August 2008. The London Metal Exchange (LME) cash price in August 2009 averaged $1,900 per metric ton, up 13% from that of the previous month and slightly lower than that in August 2008. Global LME lead stocks at the end of August 2009 were 121,225 t, 13% higher than those at the end of July 2009 and 50% greater than those at month-end August 2008.

In China, more than 200,000 metric tons per year of refined lead production capacity had been idled by month-end August owing to concerns following two lead poisoning incidents in villages that were near a lead and zinc smelter in Shaanxi Province. The Chinese Government had ordered multiple plants to cease production so it could conduct inspections of the facilities in order to reduce further environmental pollution. Despite the plant closures, China's 2009 refined lead output was expected to be greater than that in 2008 owing to increased production rates earlier in the year (Platts Metals Week, 2009).

In early August, the U.S. Department of Energy (DOE) announced that it was awarding $2.4 billion in grants to accelerate the manufacturing and deployment of the next generation of batteries and electric vehicles in the United States. The grants, funded by the American Recovery and Reinvestment Act of 2009, were allocated to 48 advanced battery and electric vehicle component development projects in more than 20 States. The battery-related awards were distributed to companies involved in many different battery technologies including lead-acid battery development. Exide Technologies (Milton, GA) was awarded $34.3 million to produce lead-acid batteries that incorporate advanced carbon technology for hybrid-electric vehicle applications. Exide had previously entered into a memorandum of understanding with Axion Power International, Inc. (New Castle, PA), the developer of a patented lead-carbon battery technology called PbC, to develop and deploy new lead-acid batteries that use this technology. The company planned to use the DOE grant to fund development of both PbC and existing absorbed glass mat lead-acid battery technologies for hybrid-electric vehicle applications. Exide expected that the investment would enable production capacity to expand by about 1.5 million batteries and create 320 new jobs at manufacturing facilities in Georgia and Tennessee (Exide Technologies, 2009).

Separately, East Penn Manufacturing Co., Inc. (Lyon Station, PA) received a $32.5 million grant from the DOE to expand production capabilities and to manufacture advanced lead-acid batteries for hybrid-electric vehicles. East Penn was planning to use the funding to become a leading source of advanced valve-regulated lead-acid batteries and for further development of the UltraBattery. East Penn had previously entered into an agreement to become the North American producer and distributor of the UltraBattery, an integrated lead-acid battery and supercapacitor that is considered suitable for hybrid-electric vehicle applications (East Penn Manufacturing Co., Inc., 2009).

The U.S. Environmental Protection Agency (EPA) announced a series of steps intended to prevent lead poisoning in children. The steps included additional proposed requirements to protect children from lead-based paint, a new effort to ban the manufacture of lead wheel weights, and a lead poisoning

prevention video contest. The EPA planned to begin the process to expand coverage and strengthen the requirements of the 2008 Renovation, Repair, and Repainting rule, which was expected to reduce exposures to lead-based paint hazards for young children. The EPA also will pursue a ban on the manufacture and distribution of lead wheel weights in response to a 2009 petition from multiple environmental and public health organizations (U.S. Environmental Protection Agency, 2009).

References Cited

East Penn Manufacturing Co., Inc., 2009, East Penn receives $32.5 million grant from the DOE to manufacture advanced lead-acid batteries: Lyon Station, PA, East Penn Manufacturing Co., Inc. news release, August 11, 2 p.

Exide Technologies, 2009, Exide Technologies awarded Federal grant: Milton, GA, Exide Technologies news release, August 7, 3 p.

Platts Metals Week, 2009, China shuts 200,000 mt/year of lead capacity for checks: Platts Metals Week, v. 80, no. 35, August 31, p. 1, 18.

U.S. Environmental Protection Agency, 2009, EPA announces new steps to protect Americans from lead poisoning—Actions to reduce overall lead exposure: Washington, DC, U.S. Environmental Protection Agency news release, August 26, 4 p.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES[1]

(Metric tons, lead content, unless otherwise specified)

	2008		2009		
	Year	January-August	July	August	January-August
Production:					
Mine (recoverable)	414,000	282,000	29,900 r	35,800	265,000
Secondary refinery:					
Reported by smelters/refineries	1,170,000	786,000	94,800	95,000	749,000
Estimated	13,700	9,810	948	950	7,490
Recovered from copper-base scrap e	15,000	10,000	1,250	1,250	10,000
Total secondary	1,200,000	806,000	97,000	97,200	767,000
Consumption:					
Reported	1,560,000	1,050,000	113,000	112,000	919,000
Undistributed e	46,700	31,400	3,380	3,350	27,600
Total	1,600,000	1,080,000	116,000	115,000	946,000
Stocks, end of period, consumers and secondary smelters	69,900	53,400	66,600	70,200	70,200
Imports for consumption:					
Base bullion	2,740	1,980	72	NA	677 2
Refined metal	309,000	210,000	16,100	NA	146,000 2
Exports:					
Ore and concentrate	277,000	142,000	42,600	NA	153,000 2
Bullion	614	554	--	NA	25 2
Wrought and unwrought lead	74,200	46,000	5,870	NA	53,600 2
TEL/TML preparations, based on lead compounds	2,330	1,670	91	NA	1,730 2
Scrap (gross weight)	175,000	121,000	11,900	NA	84,300 2
Platts Metals Week North American producer price (cents per pound)	120.33	133.28	86.91	94.50	75.21

eEstimated. rRevised. NA Not available. -- Zero.

[1]Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

[2]Includes data for January-July only; August 2009 data were not available at time of publication.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price	London Metal Exchange cash		Sterling exchange rate
	cents/lb	$/metric ton	£/metric ton	dollars/£
2008:				
August	108.84	1,922.60	1,019.13	1.886514
December	81.51	961.89	647.56	1.485405
Year	120.33	2,089.71	1,128.19	1.852265
2009:				
January	66.79	1,131.58	782.46	1.446210
February	66.01	1,099.61	758.55	1.444962
March	66.53	1,238.25	876.74	1.412341
April	67.24	1,382.08	940.30	1.469815
May	71.79	1,439.58	934.07	1.541189
June	81.92	1,673.65	1,012.14	1.635659
July	86.91	1,678.05	1,024.84	1.637377
August	94.50	1,899.26	1,147.34	1.655350

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP[1]

(Metric tons, gross weight)

Item	Stocks July 31, 2009	Net receipts	Consumption	Stocks August 31, 2009
Battery-lead	15,200	92,900	92,800	15,300
Soft lead	W	W	W	W
Drosses and residues	W	W	W	W
Other[2]	984	8,510	7,610	1,890
Total	16,200	101,000	100,000	17,200
Percent change from preceding month	XX	-0.3	-0.8	+6.4

W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

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

[2]Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap.

TABLE 4
LEAD, TIN, AND ANTIMONY RECOVERED FROM
LEAD-BASE SCRAP IN AUGUST[1]

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	53,700	--	--
Remelt lead	W	--	--
Antimonial lead	11,900	(2)	(2)
Other[3]	29,300	(2)	(2)
Total lead-base	95,000	134	245

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

-- Zero.

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

[2]Withheld to avoid disclosing company proprietary data; included in "Total."

[3]Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES[1]

(Metric tons, lead content)

Use	2008		2009		
	January-December	January-August	July	August	January-August
Metal products:					
Ammunition, shot and bullets	74,500	51,200	5,990	6,480	49,100
Brass and bronze, billet and ingots	2,260	2,620	319	319	2,640
Cable covering, power and communication and calking lead, building construction	7,340	5,620	154	154	3,880
Casting metals	31,700	21,100	1,670	1,670	13,400
Sheet lead, pipes, traps and other extruded products	27,800	18,800	2,240	2,160	17,900
Solder	7,040	4,690	629	629	4,860
Storage batteries, including oxides	1,360,000	921,000	98,400	96,900	801,000
Terne metal, type metal, and other metal products[2]	26,600	11,700	1,390	1,390	11,100
Total metal products	1,540,000	1,040,000	111,000	110,000	904,000
Other oxides and miscellaneous	15,600	15,000	1,850	1,850	15,200
Total reported	1,560,000	1,050,000	113,000	112,000	919,000
Undistributed[e]	46,700	31,400	3,380	3,350	27,600
Grand total	1,600,000	1,080,000	116,000	115,000	946,000

[e]Estimated.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

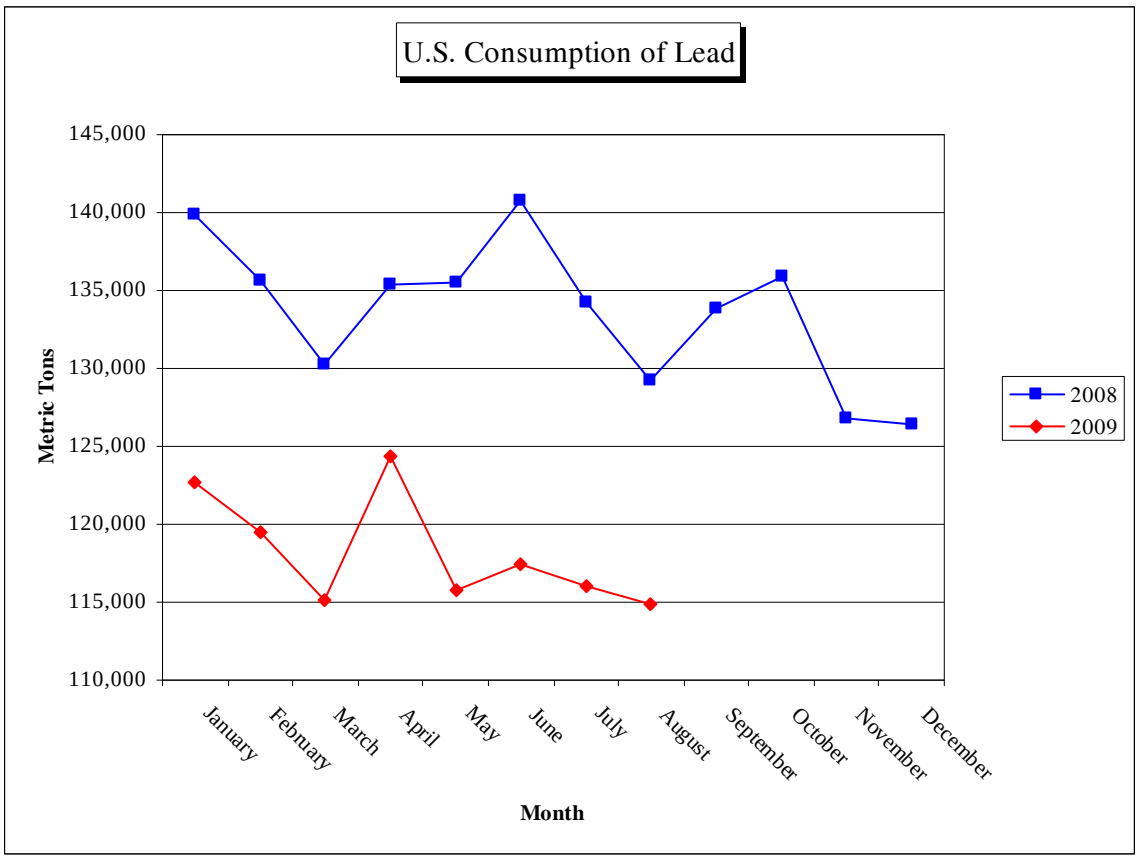

TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD[1]

(Metric tons, lead content)

Type of material	Stocks July 31, 2009	Net receipts	Consumption	Stocks August 31, 2009
Soft lead	28,800	77,000	74,300	31,500
Antimonial lead	15,600	23,500	22,600	16,500
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	66,600	115,000	112,000	70,200

W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS[1]

(Metric tons)

	2008		2009		
	July	Year	June	July	January-July
Lead content:					
Ore and concentrates	56,700	277,000	3,850	42,600	153,000
Bullion	79	614	--	--	25
Materials excluding scrap	7,020	74,200	7,150	5,870	53,600
TEL/TML preparations, based on lead compounds	184	2,330	28	91	1,730
Total	64,000	354,000	11,000	48,600	208,000
Gross weight, scrap	13,500	175,000	12,800	11,900	84,300

-- Zero.
[1]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 OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN[1]

(Metric tons, lead content)

	General imports					Imports for consumption				
	2008		2009			2008		2009		
Country of origin	Year	January-July	June	July	January-July	Year	January-July	June	July	January-July
Ore, matte, etc.:										
Canada	41	41	341	203	1,290	41	41	341	203	1,290
Mexico	451	353	--	--	--	451	353	--	--	--
Total	492	394	341	203	1,290	492	394	341	203	1,290
Base bullion:										
Colombia	543	483	--	--	--	543	483	--	--	--
Mexico	2,040	1,290	187	72	643	2,040	1,290	187	72	643
Other	152	152	34	--	34	152	152	34	--	34
Total	2,740	1,920	222	72	677	2,740	1,920	222	72	677
Pigs and bars:										
Canada	219,000	133,000	17,900	12,800	114,000	219,000	133,000	17,900	12,800	114,000
Mexico	58,100	35,200	6,820	3,290	27,500	58,100	35,200	6,820	3,290	27,500
Peru	10,600	6,080	--	--	991	10,600	6,080	--	--	991
Other	22,300	12,500	999	--	3,540	22,300	12,500	999	--	3,540
Total	309,000	187,000	25,700	16,100	146,000	309,000	187,000	25,700	16,100	146,000
Grand total	313,000	189,000	26,300	16,400	148,000	313,000	189,000	26,300	16,400	148,000

-- Zero.

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

Source: U.S. Census Bureau.