

Mineral Industry Surveys

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LEAD IN DECEMBER 2011

Domestic mine production (recoverable) of lead in December was 30,700 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in December was 989 t, up by 6% from that in November 2011. U.S. mine production of lead in 2011 was about 6% less than that of 2010; this was the fourth consecutive year that domestic lead mine production decreased on an annual basis. Secondary refinery production of lead increased slightly compared with that of the previous month. Secondary refinery production of lead in 2011 was 5% greater than that in 2010.

Total imports of lead for consumption through November 2011 were about 15% greater than those in the same period of 2010. Canada (79%) and Mexico (18%) were the principal sources of imported refined lead. Total exports of lead, exclusive of scrap, through November 2011 were 25% lower than those through the same period of 2010, partially owing to a 21% decline in exports of lead contained in concentrates. This was reflective of the decline in lead mine production during that time period.

The average Platts Metals Week North American producer price for lead in December 2011 was \$1.14 per pound, up slightly from that of the previous month and 6% lower than that in December 2010. The London Metal Exchange (LME) cash price of lead in December 2011 averaged \$2,019 per metric ton, up slightly from that of the previous month and 16% less than that in December 2010. Global LME lead stocks at the end of December 2011 were 351,725 t, 5% lower than those at the end of November 2011 but 69% greater than those at yearend 2010.

The Battery Council International reported that 122.6 million lead-acid automotive batteries were shipped by North American

producers in 2011, a slight increase compared with shipments in 2010. North American shipments of replacement lead-acid automotive batteries (107.1 million) in 2011 were slightly greater than those in 2010. Shipments of original equipment lead-acid automotive batteries (15.5 million) in 2011 increased by 12% compared with shipments in 2010 (Battery Council International, 2012, p. 23–24).

Teck Alaska Ltd. (a wholly owned subsidiary of Teck Resources Ltd., Vancouver, British Columbia, Canada) operated the Red Dog zinc-lead mine in northwestern Alaska. In the fourth quarter of 2011, Teck produced 22,100 t of lead in concentrate at Red Dog, 28% greater than that in the fourth quarter of 2010, owing to higher ore grades and recoveries. Total production of lead in concentrate at Red Dog in 2011 was 84,000 t, a 24% decline compared with that in 2010 owing to lower ore grade and recoveries associated with near-surface ore from the Aqqaluk deposit. Mine production at Red Dog began to transition from the nearly depleted main pit to the adjacent Aqqaluk deposit in mid-2010. Teck expected production of lead in concentrate to decline to about 70,000 t in 2012 (Teck Resources Ltd., 2012, p. 21–22).

References Cited

- Battery Council International, 2012, BCI 2011 monthly shipment report: Chicago, IL, Battery Council International, January 15, 24 p.
Teck Resources Ltd., 2012, Teck reports unaudited results for 2011: Vancouver, British Columbia, Canada, Teck Resources Ltd. news release, February 9, 34 p.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES¹

(Metric tons, lead content, unless otherwise specified)

	2011			
	2010	November	December	January– December
Production:				
Mine (recoverable)	356,000	28,100 ^r	30,700	336,000
Secondary refinery:				
Reported by smelters/refineries	1,140,000	96,600	97,400	1,170,000
Estimated	--	966	974	11,700
Recovered from copper-base scrap ^e	NA	1,250	1,250	15,000
Total secondary	1,140,000	98,800	99,600	1,190,000
Consumption:				
Reported	1,430,000	128,000	128,000	1,500,000
Undistributed ^e	--	3,840	3,830	45,100
Total	1,430,000	132,000	131,000	1,550,000
Stocks, end of period, consumers and secondary smelters	64,600	53,500 ^r	54,800	54,800
Imports for consumption:				
Base bullion	602	--	NA	434 ²
Refined metal	271,000	25,900	NA	286,000 ²
Exports:				
Ore and concentrate	299,000	14,200	NA	220,000 ²
Bullion	199	26	NA	35 ²
Wrought and unwrought lead	83,300	5,850	NA	43,800 ²
TEL/TML preparations, based on lead compounds	1,180	190	NA	6,160 ²
Scrap (gross weight)	43,500	2,480	NA	29,300 ²
Platts Metals Week North American producer price (cents per pound)	108.91	113.73	113.87	121.70

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

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

²Includes data for January-November only; December 2011 data were not available at time of publication.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price ¢/lb	London Metal Exchange cash		Sterling exchange rate \$/£
		\$/metric ton	£/metric ton	
2010:				
December	120.58	2,411.93	1,509.42	1.597918
Year	108.91	2,147.81	1,390.29	1.544861
2011:				
January	121.26	2,600.89	1,647.63	1.578565
February	121.21	2,586.05	1,603.29	1.612960
March	121.37	2,623.25	1,623.09	1.616209
April	122.50	2,740.61	1,675.09	1.636088
May	124.83	2,419.54	1,482.37	1.632210
June	125.17	2,511.64	1,548.78	1.621686
July	128.94	2,682.04	1,879.73	1.426819
August	127.90	2,404.09	1,468.11	1.637541
September	125.74	2,297.90	1,668.27	1.377414
October	113.86	1,948.25	1,237.07	1.574886
November	113.73	1,981.59	1,252.77	1.581773
December	113.87	2,018.59	1,292.71	1.561520
Year	121.70	2,401.20	1,531.58	1.571473

Source: Platts Metals Week.

TABLE 3
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP¹

(Metric tons, gross weight)

Item	Stocks		Consumption	Stocks
	November 30, 2011	Net receipts		December 31, 2011
Battery-lead	27,600 ^r	90,400	94,900	23,000
Soft lead	W	W	W	W
Drosses and residues	W	W	W	W
Other ²	1,120 ^r	5,660	2,680	4,100
Total	28,700 ^r	96,000	97,600	27,100
Percent change from preceding month ³	XX	+3.9	+6.1	-5.6

¹Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

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

²Includes solder, 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 DECEMBER 2011¹

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	54,300	--	--
Remelt lead	W	--	--
Antimonial lead	8,650	(2)	(2)
Other ³	34,500	(2)	(2)
Total lead-base	97,400	129	236

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.

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

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

TABLE 5
CONSUMPTION OF LEAD IN THE UNITED STATES¹

(Metric tons, lead content)

Use	2010	2011		
		November	December	January– December
Metal products:				
Ammunition, shot and bullets	65,700	5,320	5,310	70,700
Brass and bronze, billet and ingots	1,410	272	272	3,170
Cable covering, power and communication and caulking lead, building construction	W	726	671	8,220
Casting metals	16,400	1,210	1,210	14,600
Sheet lead, pipes, traps and other extruded products	23,400	2,230	2,180	27,300
Solder	6,420	533	533	7,060
Storage batteries, including oxides	1,280,000	114,000	114,000	1,330,000
Terne metal, type metal, and other metal products ²	11,000	1,230	1,230	15,500
Total metal products	1,410,000	126,000	126,000	1,480,000
Other oxides and miscellaneous	23,500	2,080	2,080	24,600
Total reported	1,430,000	128,000	128,000	1,500,000
Undistributed ^c	--	3,840	3,830	45,100
Grand total	1,430,000	132,000	131,000	1,550,000

W Withheld to avoid disclosing company proprietary data; included in "Terne metal, type metal, and other metal products." -- Zero.

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

²Includes lead consumed in bearing metals, foil, collapsible tubes, annealing, plating, galvanizing, fishing weights, and data represented by W.

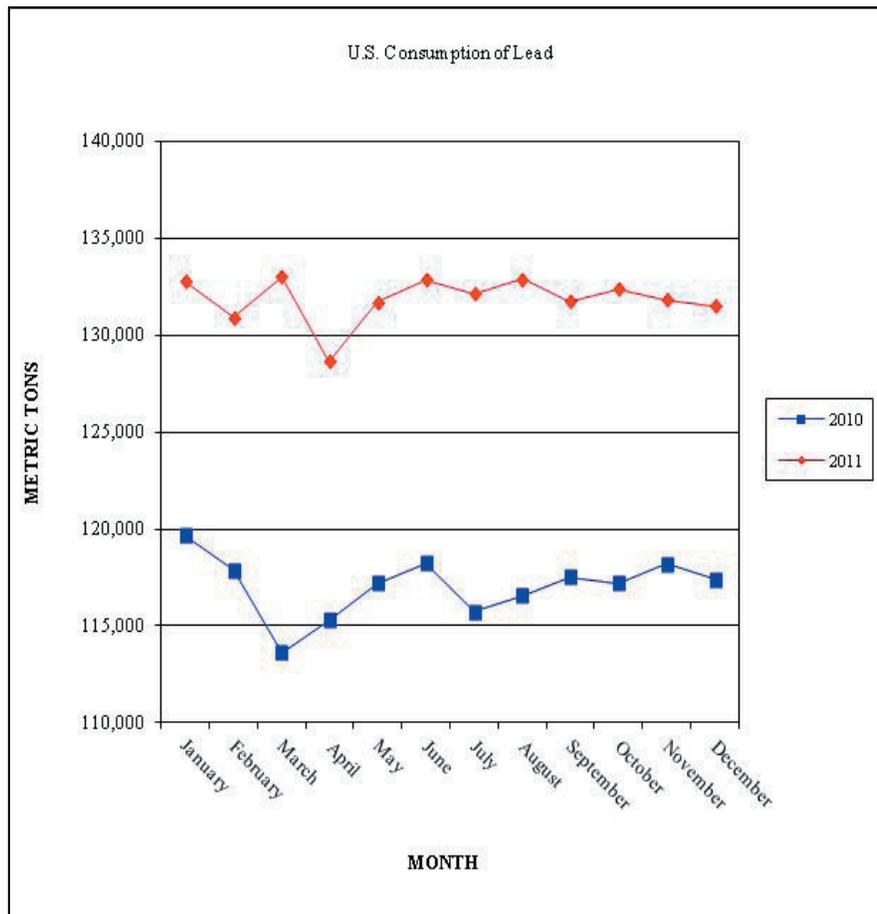


TABLE 6
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND CONSUMPTION OF LEAD¹

(Metric tons, lead content)

Type of material	Stocks		Consumption	Stocks
	November 30, 2011	Net receipts		December 31, 2011
Soft lead	30,600 ^r	80,700	80,100	31,200
Antimonial lead	13,200 ^r	29,400	28,700	13,800
Lead alloys	W	W	W	W
Copper-base scrap	W	W	W	W
Total	53,500 ^r	129,000	128,000	54,800

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits.

TABLE 7
U.S. EXPORTS OF LEAD, BY CLASS¹

(Metric tons unless otherwise specified)

	2010		2011		
	Year	January– November	October	November	January– November
Lead content:					
Ore and concentrates	299,000	280,000	48,400	14,200	220,000
Bullion	199	199	--	26	35
Materials excluding scrap	83,300	77,300	3,860	5,850	43,800
TEL/TML preparations, based on lead compounds	1,180	1,160	4,510 ²	190	6,160
Total	384,000	358,000	56,800	20,300	270,000
Gross weight, scrap	43,500	42,400	1,580	2,480	29,300
Spent lead-acid batteries, used for starting engines (units)	15,300,000	13,700,000	2,470,000	2,080,000	23,400,000

-- Zero.

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

²All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION BY TYPE OF MATERIALS AND BY
COUNTRY OF ORIGIN¹

(Metric tons, lead content)

Country of origin	2010		2011		
	Year	January– November	October	November	January– November
Ore, matte, etc., Canada	411	--	--	--	--
Base bullion:					
Canada	404	339	--	--	35
Mexico	159	124	--	--	199
Poland	38	38	--	--	--
Venezuela	--	--	--	--	200
Total	602	501	--	--	434
Pigs and bars:					
Canada	237,000	216,000	21,600	21,900	227,000
Mexico	29,400	27,000	4,790	3,530	52,100
Other	4,880	4,580	1,070	496	6,620
Total	271,000	247,000	27,500	25,900	286,000
Grand total	272,000	248,000	27,500	25,900	286,000

-- Zero.

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

Source: U.S. Census Bureau.