

Mineral Industry Surveys

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MOLYBDENUM IN AUGUST 2010

Domestic production of molybdenum (Mo) in concentrate in August 2010 was slightly less than the revised output of the previous month and 4% more than that of August 2009, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 6,070 metric tons (t) at the beginning of 2010 and about 7,080 t at the end of August.

According to Ryan's Notes, the August monthly average price range for U.S. ferromolybdenum (FeMo) was from \$16.789 to \$17.189 per pound of molybdenum content, compared with \$16.600 to \$16.978 in July. European FeMo monthly averages ranged from \$38.861 to \$39.600 per kilogram (kg) of molybdenum content in August compared with \$36.722 to \$37.778 per kg in July. In August, worldwide molybdenum oxide (MoO₃) prices ranged from \$15.328 to \$15.633 per pound compared with \$14.028 to \$14.333 per pound in July.

Lumina Copper Corp. (Vancouver, British Columbia, Canada) announced that it had initiated a drilling program at its

Taca Taca copper-molybdenum-gold deposit located in the Puna region of northwestern Argentina. At a copper-equivalent cut-off grade of 0.4%, the project was expected to have inferred resources of 841 million metric tons at a grade of 0.018% molybdenum, representing 151,000 t of contained molybdenum (Lumina Copper Corp., 2010).

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, U.S. consumption by end use, and consumer stocks of molybdenum material in July and August 2010. Export data for June and July 2010 and import data for July 2010 are also included.

Reference Cited

Lumina Copper Corp., 2010, Lumina Copper starts drill program at Taca Taca copper/gold/molybdenum project, Lumina Copper Corp., August 9. (Accessed November 12, 2010, at <http://www.luminacopper.com/i/pdf/LUMResourceSummary-JAN2009.pdf>)

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

	2009		2010		
	January- December ^p	January- August	July	August	January- August ²
Production	47,700	31,500	5,000 ^r	4,940	38,100
Shipments: ³					
Domestic	12,200	8,250	1,120 ^r	1,370	9,120
Export	12,800	7,970	W	W	W

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data.

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

²May include revisions to prior months.

³As reported by producers.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM
PRODUCTS¹

(Metric tons, contained molybdenum)

	2009		2010		
	January- December ^p	January- August	July	August	January- August ²
Gross production	59,900	39,400	4,530	5,990	45,300
Internal consumption ³	26,200	17,400	W	W	W
Gross shipments	43,300	28,900	4,050	4,380	34,100

^pPreliminary. W Withheld to avoid disclosing company proprietary data.

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

²May include revisions for prior months.

³Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS¹

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molybdenum ²	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
2010:						
July:						
Steel:						
Carbon	33,200	W	--	--	W	33,200
High-strength low-alloy	48,400	8,230	--	--	--	56,600
Stainless and heat-resisting	190,000	64,100	--	W	6,510	260,000
Full alloy	251,000	275,000	--	--	W	526,000
Tool	W	W	--	--	--	W
Total	522,000	347,000	--	W	6,510	876,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	34,300	W	--	W	70,200	104,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	73	1,220	--	--	--	1,290
Mill products made from metal powder ³	--	--	--	--	W	W
Cemented carbides and related products ⁴	--	--	--	--	6	6
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	W	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	66,700	48,900	72,600	49,300	224,000	462,000
Grand total	701,000	397,000	72,600	49,300	312,000	1,530,000
Stocks, July 31, 2010	326,000	298,000	2,200	(5)	(5)	1,540,000
August:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	58,400	7,320	--	--	--	65,700
Stainless and heat-resisting	162,000	63,800	--	W	6,510	232,000
Full alloy	247,000	288,000	--	--	W	535,000
Tool	W	W	--	--	--	W
Total	468,000	359,000	--	W	6,510	833,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	W	70,200	70,200
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	69	W	--	--	--	69
Mill products made from metal powder ³	--	--	--	--	W	W
Cemented carbides and related products ⁴	--	--	--	--	6	6
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	W	W

See footnotes at end of table.

TABLE 3—Continued
 U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS¹

(Kilograms, contained molybdenum)

End use	Molybdc oxides	Ferro molyb- denum ²	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2010:						
August—Continued:						
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	132,000	51,600	72,600	56,300	221,000	533,000
Grand total	677,000	411,000	72,600	56,300	308,000	1,520,000
Stocks, August 31, 2010	316,000	299,000	2,200	(5)	(5)	1,510,000

W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category. -- Zero.

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

²Includes calcium molybdate.

³Includes ingot, wire, rod, and sheet.

⁴Includes construction, mining, oil and gas, metalworking machinery.

⁵Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2009			2010		
	January- December	July	January- July	June	July	January- July
Australia	159	--	159	--	--	--
Austria	--	--	--	--	36,700	50,500
Belgium	7,060,000	537,000	2,880,000	750,000	1,200,000	5,400,000
Brazil	49,100	20,000	49,100	37,800	26,600	143,000
Canada	1,070,000	149,000	503,000	82,800	64,300	616,000
Chile	212,000	41,200	212,000	--	--	--
China	6,680,000	944,000	2,990,000	304,000	373,000	3,260,000
France	--	--	--	--	--	4,410
Germany	--	--	--	62,100	24,900	107,000
Hong Kong	38,900	--	--	--	--	--
India	144,000	20,500	113,000	51,300	100,000	384,000
Japan	912,000	35,000	452,000	195,000	232,000	1,150,000
Kenya	23,200	23,200	23,200	--	--	--
Korea, Republic of	884,000	83,500	465,000	68,000	49,100	437,000
Mexico	2,870,000	16,400	2,110,000	347,000	465,000	3,000,000
Netherlands	6,510,000	418,000	3,930,000	814,000	835,000	5,080,000
New Caledonia	--	--	--	1,050	--	1,050
Poland	--	--	--	--	--	194
Slovenia	--	--	--	--	--	12,400
South Africa	431,000	--	320,000	80,000	99,000	303,000
Spain	--	--	--	--	--	24,600
Sweden	1,140	--	--	--	--	--
Taiwan	20,000	2,960	2,960	--	25,400	25,400
Thailand	9,620	--	--	9,620	--	19,200
United Arab Emirates	5,910	5,910	5,910	12,300	5,570	30,200
United Kingdom	2,440,000	174,000	1,370,000	514,000	432,000	2,640,000
Venezuela	1,580	--	1,580	--	--	940
Vietnam	229,000	4,720	120,000	--	20,600	51,400
Total	29,600,000	2,480,000	15,600,000	3,330,000	3,990,000	22,700,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2009			2010		
	January- December	July	January- July	June	July	January- July
Argentina	13,200	11,800	13,200	--	--	--
Australia	--	--	--	--	--	628
Belgium	13,500	--	13,500	--	--	--
Canada	581,000	43,700	248,000	36,900	77,100	414,000
China	25,300	--	25,300	--	--	--
Colombia	1,280	--	1,280	--	--	620
Denmark	200	--	--	172	--	172
India	65,300	21,000	65,200	--	--	10,900
Israel	95	--	95	--	--	--
Korea, Republic of	26,800	--	26,800	--	--	--
Mexico	55,200	20,800	34,800	2,720	--	5,510
Netherlands	24,000	--	--	12,700	12,700	25,500
Peru	3,180	--	3,180	--	--	--
Philippines	1,210	--	942	--	--	939
Singapore	--	--	--	--	--	7,380
Taiwan	12,500	--	12,500	--	--	--
United Arab Emirates	3,260	--	3,260	--	--	--
Total	827,000	97,300	448,000	52,600	89,900	465,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS¹

(Kilograms, unless otherwise specified)

Material	January-December 2009			July 2010			January-July 2010		
	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)
Ore and concentrates roasted	7,780,000	4,800,000	\$94,800	772,000	479,000	\$9,770	6,530,000	4,020,000	\$73,300
Ore and concentrates other	5,590,000	2,720,000	54,900	1,770,000	780,000	25,800	7,140,000	3,400,000	105,000
Molybdenum chemicals:									
Oxides and hydroxides	209,000	NA	3,330	107,000	NA	2,680	365,000	NA	8,340
Molybdates of ammonium	1,140,000	642,000	19,400	176,000	98,800	3,350	1,110,000	625,000	20,000
Molybdates (all others)	30,300	14,500	1,090	2,900	1,380	35	44,600	15,500	1,050
Molybdenum orange	269,000	NA	2,170	24,700	NA	220	245,000	NA	1,870
Ferromolybdenum	3,040,000	2,030,000	50,100	423,000	280,000	9,900	3,210,000	2,150,000	77,400
Molybdenum powders	60,000	52,500	2,870	53,800	53,800	2,580	130,000	123,000	5,600
Molybdenum unwrought	107,000	97,800	2,880	50,000	50,000	1,610	113,000	113,000	3,430
Molybdenum waste and scrap	482,000	473,000	15,300	41,100	40,900	1,710	380,000	366,000	15,000
Molybdenum wire	15,100	NA	2,120	975	NA	171	10,800	NA	1,770
Molybdenum other	306,000	NA	19,800	24,100	NA	2,030	373,000	NA	20,700
Total	19,000,000	XX	269,000	3,440,000	XX	59,800	19,700,000	XX	333,000

NA Not available. XX Not applicable.

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

²Customs value.

Source: U.S. Census Bureau.