

Mineral Industry Surveys

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MOLYBDENUM IN JULY 2013

Domestic production of molybdenum (Mo) in concentrate in July 2013 was slightly more than the output of the previous month and slightly less than that of July 2012. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 8,300 metric tons (t) at the beginning of 2013 and about 10,000 t at the end of July.

According to Ryan's Notes, the July monthly average price range for U.S. ferromolybdenum (FeMo) was \$11.456 to \$11.711 per pound (lb) of molybdenum content, compared with \$12.025 to \$12.263 in June. European FeMo monthly averages ranged from \$23.828 to \$24.233 per kilogram (kg) of molybdenum content in July compared with \$26.213 to \$26.588 per kg in June. In July, worldwide molybdenum oxide (MoO₃)

prices ranged from \$9.511 to \$9.717 per pound, compared with \$10.569 to \$10.700 per pound in June.

Molybdenum production from the Antamina copper - molybdenum mine in Peru in the second quarter of 2013 decreased by 19% to 1,112 t molybdenum compared with 1,373 t in the second quarter of 2012 (Ryan's Notes, 2013).

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 June and July 2013. Export data for June and July 2013 and import data for July 2013 are also included.

Reference Cited

Ryan's Notes, 2013, Ferroalloy notes: Ryan's Notes, v. 19, no. 29, July 22, p. 2.

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

Period	Production	Shipments ²	
		Domestic	Export
2012:			
January–July	34,600 ^r	26,600 ^r	W
July	5,110 ^r	3,730 ^r	W
August	4,740 ^r	4,220 ^r	W
September	4,740 ^r	3,840 ^r	W
October	5,490 ^r	5,400 ^r	W
November	5,560 ^r	5,000 ^r	W
December	5,330 ^r	4,780 ^r	W
January–December	60,400 ^r	49,800 ^r	W
2013:			
January	5,300 ^r	4,500 ^r	W
February	4,880 ^r	4,530 ^r	W
March	5,730 ^r	4,560 ^r	W
April	5,340 ^r	4,400 ^r	W
May	4,810 ^r	4,400 ^r	W
June	5,090 ^r	4,510 ^r	W
July	4,960	4,520	W
January–July	36,100	31,400	W

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

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

²As reported by producers.

TABLE 2
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS¹

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum ²	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2013:						
June:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	W	7,380	--	--	--	7,380
Stainless and heat-resisting	167,000	52,300	--	(3)	W	219,000
Full alloy	244,000	W	--	--	W	244,000
Tool	W	W	--	--	--	W
Total	411,000	59,700	--	--	--	471,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	84,300	84,300
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	351	W	--	--	--	351
Mill products made from metal powder ⁴	W	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	--
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	--	--
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	144,000	300,000	93	(3)	335,000	779,000
Grand total	633,000	359,000	93	--	430,000	1,420,000
Stocks, June 30, 2013	467,000	277,000	2,410	(6)	(6)	1,620,000
July:						
Steel:						
Carbon	31,600	W	--	--	W	31,600
High-strength low-alloy	W	7,380	--	--	--	7,380
Stainless and heat-resisting	168,000	52,300	--	(3)	W	220,000
Full alloy	244,000	W	--	--	W	244,000
Tool	W	W	--	--	--	W
Total	444,000	59,700	--	--	--	504,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	83,700	83,700
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	180	W	--	--	--	180
Mill products made from metal powder ⁴	W	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	--
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	--	--
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	106,000	301,000	901	(3)	325,000	732,000
Grand total	627,000	360,000	901	--	420,000	1,410,000
Stocks, July 31, 2013	469,000	281,000	2,850	(6)	(6)	1,630,000

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

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

²Includes calcium molybdate.

³Withheld to avoid disclosing company proprietary data; included in "Other, Miscellaneous and unspecified uses: Other" category.

⁴Includes ingot, wire, rod, and sheet.

⁵Includes construction, mining, oil and gas, metalworking machinery.

⁶Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 3
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2012			2013		
	January– December	July	January– July	June	July	January– July
Australia	--	--	--	172,000	41,100	214,000
Austria	166,000	11,200	87,600	--	--	31,800
Belgium	6,190,000	554,000	4,190,000	202,000	342,000	1,780,000
Brazil	378,000	37,000	247,000	74,200	104,000	453,000
Canada	2,220,000	236,000	1,470,000	183,000	147,000	1,170,000
China	2,130,000	57,700	1,410,000	54,800	66,500	555,000
Colombia	7,190	--	7,190	--	--	--
Germany	71,900	--	36,500	12,000	--	172,000
Hungary	997	--	997	--	--	--
India	660,000	36,400	275,000	60,400	140,000	823,000
Japan	3,780,000	275,000	2,000,000	378,000	390,000	2,460,000
Korea, Republic of	420,000	40,800	228,000	59,500	89,500	569,000
Mexico	7,590,000	765,000	4,820,000	796,000	958,000	5,440,000
Netherlands	13,000,000	1,220,000	7,650,000	1,520,000	2,890,000	12,700,000
Peru	8,110	--	724	363	--	18,500
Philippines	8,170	--	8,170	--	--	2,180
Singapore	--	--	--	--	1,370	1,370
South Africa	382,000	12,000	192,000	57,000	40,000	154,000
Taiwan	6,040	--	5,700	6,770	5,030	24,900
Thailand	30,000	7,260	29,900	--	--	37,000
United Kingdom	6,450,000	682,000	3,100,000	47,500	33,500	1,480,000
Vietnam	18,300	--	10,900	12,500	335	42,500
Total	43,500,000	3,940,000	25,800,000	3,630,000 ^r	5,250,000	28,100,000

^rRevised. -- Zero.

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

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2012			2013		
	January– December	July	January– July	June	July	January– July
Argentina	26,200	--	--	--	--	--
Australia	223	--	223	--	--	--
Brazil	528	--	--	--	--	--
Canada	677,000	32,100	447,000	41,500	67,600	405,000
Colombia	224	--	--	--	--	119
Denmark	495	--	323	--	--	171
Israel	--	--	--	--	--	168
Mexico	188,000	121	20,900	23,700	13,500	73,900
Netherlands	76,600	12,000	76,600	35,100	--	48,600
Panama	--	--	--	--	--	13,200
Peru	--	--	--	--	--	6,000
Saudi Arabia	26,400	--	--	--	--	--
Total	996,000	44,200	545,000	100,000	81,100	547,000

-- 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. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS¹

(Kilograms, unless otherwise specified)

Material	January–December 2012			2013					
	Gross weight	Contained molybdenum	Value ² (thousands)	July			January–July		
				Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)
Ore and concentrates roasted	10,100,000	6,170,000	\$100,000	699,000	425,000	\$5,150	4,100,000	2,470,000	\$31,700
Ore and concentrates other	11,900,000	5,810,000	199,000	1,710,000	811,000	24,200	9,600,000	4,560,000	140,000
Molybdenum chemicals:									
Oxides and hydroxides	532,000	NA	10,600	--	--	--	242,000	NA	4,710
Molybdates of ammonium	813,000	460,000	14,900	60,000	33,800	911	914,000	518,000	14,500
Molybdates (all others)	41,800	16,300	748	--	--	--	1,000	396	21
Molybdenum orange	355,000	NA	2,910	16,900	--	181	166,000	NA	1,540
Ferromolybdenum	6,450,000	4,320,000	138,000	339,000	225,000	6,030	3,340,000	2,240,000	62,600
Molybdenum powders	408,000	362,000	16,700	43,200	42,600	1,590	243,000	236,000	9,150
Molybdenum unwrought	744,000	726,000	21,800	49,700	47,800	1,460	446,000	434,000	13,800
Molybdenum waste and scrap	971,000	925,000	31,400	82,000	76,800	2,390	463,000	431,000	14,700
Molybdenum wire	19,600	NA	2,760	2,190	NA	297	11,300	NA	1,790
Molybdenum other	507,000	NA	31,700	39,700	NA	2,170	201,000	NA	12,800
Total	32,900,000	XX	570,000	3,040,000	XX	44,400	19,700,000	XX	307,000

NA Not available. XX Not applicable. -- Zero.

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

²Customs value.

Source: U.S. Census Bureau.