

Mineral Industry Surveys

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MOLYBDENUM IN NOVEMBER 2013

Domestic production of molybdenum (Mo) in concentrate in November 2013 was 5% less than the output of the previous month and 14% less than that of November 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 9,100 t at the end of November.

According to Ryan's Notes, the November monthly average price range for U.S. ferromolybdenum (FeMo) was \$11.013 to \$11.213 per pound of molybdenum content, compared with \$10.967 to \$11.167 in October. European FeMo monthly average prices ranged from \$24.675 to \$25.125 per kilogram (kg) of molybdenum content in November compared with \$23.911 to \$24.267 per kg in October. In November, worldwide molybdenum oxide (MoO₃) prices ranged from \$9.706 to \$9.806 per pound compared with \$9.461 to \$9.578 per pound in October.

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 October and November 2013. Export data for October and November 2013 and import data for November 2013 are also included.

Thompson Creek Metals Co. Inc. reported molybdenum production for the third quarter of 2013 at its Thompson Creek Mine to be 2,600 t Mo compared with 2,000 t Mo produced in the third quarter of 2012. The Thompson Creek Mine is an open pit molybdenum mine and mill near Challis, ID (Thompson Creek Metals Co. Inc., 2013, p. 2).

Reference Cited

Thompson Creek Metals Co. Inc., 2013, Thompson Creek Metals Company reports third quarter 2013 financial results: Littleton, CO, Thompson Creek Metals Co. Inc. news release, November 12, 15 p. (Accessed February 19, 2014, at http://www.thompsoncreekmetals.com/i/pdf/nr/2013-11-12_NR.pdf.)

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

Period	Production	Shipments ²	
		Domestic	Export
2012:			
January–November	55,100 ^r	16,600 ^r	W
November	5,560	1,550	W
December	5,330	1,500	W
January–December	60,400	18,100	W
2013:			
January	5,300	1,090	W
February	4,880	1,230	W
March	5,730	1,250	W
April	5,340	1,380	W
May	4,810	2,540	W
June	5,090	1,300	W
July	4,960	(3)	W
August	4,940	(3)	W
September	5,210	1,480	W
October	5,070 ^r	1,430	W
November	4,790	1,020	W
January–November	56,100	15,300	W

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

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

²As reported by producers.

³Withheld to avoid disclosing company proprietary data; included in "January–November."

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:						
October:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	W	7,670	--	--	--	7,670
Stainless and heat-resisting	165,000	52,000	--	(3)	W	217,000
Full alloy	245,000	227,000	--	--	W	472,000
Tool	W	W	--	--	--	W
Total	411,000	286,000	--	--	--	697,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	16,300	W	--	(3)	87,200	103,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	225	W	--	--	--	225
Mill products made from metal powder ⁴	--	--	--	--	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	132,000	51,000	(3)	(3)	347,000	529,000
Grand total	636,000	337,000	--	--	445,000	1,420,000
Stocks, October 31, 2013	488,000	280,000	2,610	(6)	(6)	1,650,000
November:						
Steel:						
Carbon	33,800	W	--	--	W	33,800
High-strength low-alloy	W	7,690	--	--	--	7,690
Stainless and heat-resisting	168,000	52,000	--	(3)	W	220,000
Full alloy	245,000	209,000	--	--	W	454,000
Tool	W	W	--	--	--	W
Total	447,000	268,000	--	--	--	715,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	16,300	W	--	(3)	88,200	104,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	146	W	--	--	--	146
Mill products made from metal powder ⁴	--	--	--	--	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	93,000	44,700	(3)	(3)	333,000	471,000
Grand total	634,000	313,000	--	--	432,000	1,380,000
Stocks, November 30, 2013	493,000	284,000	2,610	(6)	(6)	1,660,000

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	November	January– November	October	November	January– November
Australia	--	--	--	--	--	214,000
Austria	166,000	11,200	143,000	--	--	31,800
Belgium	6,190,000	231,000	6,040,000	455,000	691,000	3,350,000
Brazil	378,000	--	378,000	40,000	38,100	642,000
Canada	2,220,000	154,000	2,110,000	234,000	148,000	1,910,000
China	2,130,000	155,000	1,970,000	190,000	118,000	1,320,000
Colombia	7,190	--	7,190	--	--	--
Germany	71,900	--	47,900	--	--	172,000
Hungary	997	--	997	--	--	--
India	660,000	96,900	535,000	43,700	132,000	1,190,000
Japan	3,780,000	569,000	3,480,000	490,000	632,000	4,460,000
Korea, Republic of	420,000	24,000	395,000	91,700	64,300	863,000
Mexico	7,590,000	505,000	7,190,000	716,000	712,000	8,330,000
Netherlands	13,000,000	970,000	11,700,000	2,120,000	1,630,000	19,800,000
Peru	8,110	7,200	8,110	--	--	24,700
Philippines	8,170	--	8,170	--	--	2,180
Singapore	--	--	--	--	--	1,370
South Africa	382,000	--	382,000	20,000	--	194,000
Taiwan	6,040	--	6,040	--	--	24,900
Thailand	30,000	--	29,900	7,260	--	44,300
United Kingdom	6,450,000	853,000	5,490,000	79,200	246,000	1,920,000
Venezuela	--	--	--	210	--	210
Vietnam	18,300	--	17,900	--	6,580	49,100
Total	43,500,000	3,570,000	39,900,000	4,480,000	4,420,000	44,500,000

-- 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	November	January– November	October	November	January– November
Argentina	26,200	--	26,200	--	--	--
Australia	223	--	223	--	--	--
Brazil	528	--	528	--	--	--
Canada	677,000	64,100	631,000	71,300	44,900	626,000
Colombia	224	--	119	--	--	238
Denmark	495	172	495	--	171	513
Israel	--	--	--	--	--	168
Mexico	188,000	22,900	130,000	34,100	18,000	139,000
Netherlands	76,600	--	76,600	--	--	48,600
Panama	--	--	--	--	--	13,200
Peru	--	--	--	554	--	6,550
Saudi Arabia	26,400	--	26,400	--	--	--
Total	996,000	87,100	892,000	106,000	63,100	834,000

-- 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)	November			January–November		
				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	615,000	368,000	\$3,420	6,230,000	3,760,000	\$42,800
Ore and concentrates other	11,900,000	5,810,000	199,000	1,690,000	886,000	23,400	15,400,000	7,570,000	223,000
Molybdenum chemicals:									
Oxides and hydroxides	532,000	NA	10,600	1,660	NA	18	263,000	NA	5,060
Molybdates of ammonium	813,000	460,000	14,900	39,900	22,500	561	1,080,000	611,000	17,000
Molybdates (all others)	41,800	16,300	748	--	--	--	1,310	517	39
Molybdenum orange	355,000	NA	2,910	24,900	--	216	265,000	NA	2,340
Ferromolybdenum	6,450,000	4,320,000	138,000	498,000	329,000	7,980	5,580,000	3,730,000	99,400
Molybdenum powders	408,000	362,000	16,700	28,700	27,800	998	399,000	386,000	14,400
Molybdenum unwrought	744,000	726,000	21,800	43,600	43,400	1,170	711,000	697,000	20,900
Molybdenum waste and scrap	971,000	925,000	31,400	81,000	79,100	2,200	648,000	614,000	19,800
Molybdenum wire	19,600	NA	2,760	2,100	NA	313	18,700	NA	2,970
Molybdenum other	507,000	NA	31,700	25,300	NA	1,560	284,000	NA	19,100
Total	32,900,000	XX	570,000	3,050,000	XX	41,800	30,900,000	XX	467,000

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.