

Mineral Industry Surveys

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MOLYBDENUM IN NOVEMBER 2010

Domestic production of molybdenum (Mo) in concentrate in November 2010 was about 4% less than the output of the previous month and 44% more than that of November 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 8,520 t at the end of November.

According to Ryan's Notes, the November monthly average price range for U.S. ferromolybdenum (FeMo) was \$17.863 to \$18.250 per pound of molybdenum content, compared with \$17.689 to \$18.022 in October. European FeMo monthly averages ranged from \$40.500 to \$40.963 per kilogram (kg) of molybdenum content in November compared with \$38.222 to \$38.833 per kg in October. In November, worldwide molybdenum oxide (MoO₃) prices ranged from \$15.944 to \$16.150 per pound compared with \$15.139 to \$15.406 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 2010. Export data for September and October 2010 and import data for October 2010 are also included.

Sichuan Hanlong Group (China) and the Export-Import Bank of China (CEXIM), Chengdu branch signed a memo of cooperation stating that CEXIM would provide up to \$1.5 billion in loans to Hanlong to support investment in overseas mining. Hanlong agreed to provide \$745 million in financing to General Moly Inc.'s Mt. Hope Project. The Mt. Hope project, located north of Eureka, Nevada, was expected to produce 18,000 t of molybdenum annually over its first 5 years of operation. General Moly's arrangement with Hanlong was expected to provide all remaining capital necessary to bring Mt. Hope into production in early 2013 (General Moly Inc., 2010).

Reference Cited

General Moly Inc., 2010, General Moly announces Hanlong's signing of memo of cooperation with EXIM Bank of China: Lakewood, CO, General Moly Inc., November 18, 3 p. (Accessed February 14, 2011 at http://www.generalmoly.com/images/stories/hanlong_cexim_vfinal.pdf.)

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

	2009		2010		
	January- December ^p	January- November	October	November	January- November ²
Production	47,700	44,000	5,660	5,420	53,700
Shipments: ³					
Domestic	12,200	11,300	1,130	1,230	12,600
Export	12,800	11,600	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- November	October	November	January- November ²
Gross production	59,900	54,900 ^r	5,970	6,160	65,300
Internal consumption ³	26,200	24,100	W	W	W
Gross shipments	43,300	39,600 ^r	4,110	4,520	47,200

^pPreliminary. ^rRevised. 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 molyb- denum ²	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2010:						
October:						
Steel:						
Carbon	31,800	W	--	--	W	31,800
High-strength low-alloy	57,500	8,330	--	--	--	65,800
Stainless and heat-resisting	160,000	63,900	--	W	6,510	231,000
Full alloy	251,000	289,000	--	--	W	539,000
Tool	W	W	--	--	--	W
Total	500,000	361,000	--	W	6,510	868,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	25,500	W	--	W	81,900	107,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	104	W	--	--	--	104
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	51,600	73,700	46,900	230,000	469,000
Grand total	670,000	412,000	73,700	46,900	329,000	1,530,000
Stocks, October 31, 2010	298,000	292,000	2,100	(5)	(5)	1,480,000
November:						
Steel:						
Carbon	33,200	W	--	--	W	33,200
High-strength low-alloy	W	7,320	--	--	--	7,320
Stainless and heat-resisting	168,000	62,900	--	W	6,510	238,000
Full alloy	252,000	301,000	--	--	W	553,000
Tool	W	W	--	--	--	W
Total	454,000	371,000	--	W	6,510	832,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	22,200	W	--	W	70,900	93,100
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	80	W	--	--	--	80
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:						
November—Continued:						
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	110,000	50,600	72,600	55,700	208,000	496,000
Grand total	663,000	422,000	72,600	55,700	296,000	1,510,000
Stocks, November 30, 2010	308,000	296,000	2,090	(5)	(5)	1,490,000

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	October	January- October	September	October	January- October
Argentina	--	--	--	13,200	--	13,200
Australia	159	--	159	--	--	--
Austria	--	--	--	50,000	35,000	148,000
Belgium	7,060,000	641,000	5,520,000	588,000	925,000	7,950,000
Brazil	49,100	--	49,100	36,700	18,700	211,000
Canada	1,070,000	122,000	953,000	44,600	120,000	888,000
Chile	212,000	--	212,000	--	--	--
China	6,680,000	543,000	5,210,000	299,000	489,000	4,490,000
France	--	--	--	--	--	4,410
Germany	--	--	--	--	--	143,000
Hong Kong	38,900	--	--	--	--	--
India	144,000	--	139,000	99,500	45,300	646,000
Italy	--	--	--	--	13,200	13,200
Japan	912,000	78,500	726,000	235,000	433,000	2,060,000
Kenya	23,200	--	23,200	--	--	--
Korea, Republic of	884,000	53,600	732,000	105,000	82,300	706,000
Mexico	2,870,000	--	2,120,000	312,000	388,000	4,010,000
Netherlands	6,510,000	340,000	5,700,000	660,000	742,000	7,080,000
New Caledonia	--	--	--	--	--	1,050
Poland	--	--	--	--	--	194
Slovenia	--	--	--	--	--	24,600
South Africa	431,000	59,600	431,000	100,000	17,700	520,000
Spain	--	--	--	--	--	24,600
Sweden	1,140	--	1,140	--	151	151
Taiwan	20,000	--	20,000	--	--	26,500
Thailand	9,620	--	9,620	--	--	19,200
United Arab Emirates	5,910	--	5,910	62,300	--	117,000
United Kingdom	2,440,000	85,600	2,200,000	351,000	377,000	3,780,000
Venezuela	1,580	--	1,580	--	--	940
Vietnam	229,000	5,010	205,000	12,500	2,340	66,300
Total	29,600,000	1,930,000	24,300,000	2,970,000	3,690,000	33,000,000

-- 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	October	January- October	September	October	January- October
Argentina	13,200	--	13,200	--	--	13,300
Australia	--	--	--	--	--	628
Belgium	13,500	--	13,500	--	--	--
Canada	581,000	77,100	460,000	65,800	47,900	589,000
China	25,300	--	25,300	--	--	--
Colombia	1,280	--	1,280	551	--	1,170
Denmark	200	200	200	--	200	372
India	65,300	--	65,300	12,600	6,470	30,000
Israel	95	--	95	--	--	--
Korea, Republic of	26,800	--	26,800	--	--	11,200
Mexico	55,200	16,200	52,400	--	--	9,620
Netherlands	24,000	--	24,000	41,200	37,100	130,000
Peru	3,180	--	3,180	--	--	--
Philippines	1,210	--	1,210	--	--	939
Singapore	--	--	--	--	--	7,380
Taiwan	12,500	--	12,500	--	--	--
Turkey	--	--	--	--	--	103
United Arab Emirates	3,260	--	3,260	--	--	--
Total	827,000	93,500	702,000	120,000	91,700	794,000

-- 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			October 2010			January-October 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	881,000	545,000	\$8,630	8,950,000	5,500,000	\$98,100
Ore and concentrates other	5,590,000	2,720,000	54,900	2,070,000	1,020,000	31,200	11,400,000	5,550,000	168,000
Molybdenum chemicals:									
Oxides and hydroxides	209,000	NA	3,330	39,900	NA	1,400	476,000	NA	11,300
Molybdates of ammonium	1,140,000	642,000	19,400	79,300	44,500	1,330	1,550,000	882,000	27,700
Molybdates (all others)	30,300	14,500	1,090	4,570	1,900	58	58,900	21,900	1,360
Molybdenum orange	269,000	NA	2,170	18,000	NA	174	311,000	NA	2,400
Ferromolybdenum	3,040,000	2,030,000	50,100	390,000	260,000	10,200	4,640,000	3,100,000	112,000
Molybdenum powders	60,000	52,500	2,870	16,200	14,200	781	220,000	209,000	9,610
Molybdenum unwrought	107,000	97,800	2,880	48,000	44,900	1,480	221,000	218,000	6,920
Molybdenum waste and scrap	482,000	473,000	15,300	27,500	27,400	1,050	588,000	568,000	22,600
Molybdenum wire	15,100	NA	2,120	2,940	NA	375	16,000	NA	2,500
Molybdenum other	306,000	NA	19,800	74,800	NA	4,500	515,000	NA	31,800
Total	19,000,000	XX	269,000	3,650,000	XX	61,100	29,000,000	XX	495,000

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.