

Mineral Industry Surveys

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MOLYBDENUM IN MARCH 2009

Domestic production of molybdenum (Mo) in concentrate in March 2009 was 6% less than the output of the previous month and 36% less than that of March 2008, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 5,610 metric tons (t) at the beginning of 2009 and about 7,150 t at the end of March.

According to Ryan's Notes (2009), the March 2009 monthly average price range for U.S. ferromolybdenum (FeMo) was \$9.178 to \$9.556 per pound (lb) of molybdenum content, compared with \$10.100 to \$10.550 per lb in February 2009. European FeMo monthly averages ranged from \$20.650 to \$21.061 per kilogram (kg) of molybdenum content in March compared with \$21.094 to \$21.669 per kg in February. In March, worldwide molybdenum oxide (MoO₃) prices ranged from \$8.372 to \$8.622 per lb compared with \$8.925 to \$9.188 per lb in February.

Creston Moly Corp. (Vancouver, British Columbia, Canada) announced that, as part of a pre-feasibility study on its Creston molybdenum deposit (Sonora, Mexico), it surveyed banks and financial institutions during the fourth quarter 2008 and the first

quarter 2009 to obtain short-and long-term projections for molybdenum prices. A few banks submitted projections for 1 or 2 years, but most projected forward 10 years. The forecast average for molybdenum for 2009 to 2018 reportedly was \$14.37 per lb. The average of all surveyed companies for the next 3 years (2009, 2010, and 2011) reportedly was \$17.42 per lb (Creston Moly Corp., 2009, p. 2).

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 February and March 2009. Export data for January and February and import data for February 2009 are also included.

References Cited

- Creston Moly Corp., 2009, Creston Moly Corp. announces a positive pre-feasibility study for its Mexican molybdenum project: Vancouver, British Columbia, Canada, Creston Moly Corp., February 18, 6 p. (Accessed August 20, 2009 at http://www.crestonmoly.com/i/pdf/2009-02-18_NR.pdf.)
Ryan's Notes, 2009, [untitled]: Ryan's Notes, v. 15, no. 14, April 6, p. 12.

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

	2008		2009		
	January- December	January- March	February	March	January- March
Production	55,800	14,700	3,450	3,240	10,200
Shipments: ²					
Domestic	41,100	10,900	1,670	1,500	5,300
Export	12,900	3,960	996	828	2,430

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

²As reported by producers.

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

(Metric tons, contained molybdenum)

	2008		2009		
	January- December	January- March	February	March	January- March
Gross production	72,800	18,500	4,690	4,420	14,100
Internal consumption ²	39,400	10,300	2,070	1,680	5,910
Gross shipments	51,200	13,300	3,410	3,100	9,770

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

²Includes 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
2009, February:						
Steel:						
Carbon	30,900	W	--	--	W	30,900
High-strength low-alloy	39,100	7,930	--	--	11,300	58,400
Stainless and heat-resisting	152,000	62,400	--	W	6,510	221,000
Full alloy	237,000	251,000	--	--	1,510	490,000
Tool	W	W	--	--	--	W
Total	459,000	321,000	--	W	19,400	799,000
Cast irons (gray, malleable, and ductile iron)	W	20,700	--	--	763	21,500
Superalloys	47,900	W	--	W	72,900	121,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	W	5,570	--	--	--	5,570
Mill products made from metal powder ³	13,300	--	--	--	172,000	186,000
Cemented carbides and related products ⁴	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	417	417
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	66,800	28,400	72,600	87,200	16,800	272,000
Grand total	664,000	376,000	72,600	87,200	293,000	1,490,000
Stocks, February 28, 2009	307,000	312,000	2,150	10,700	857,000	1,490,000
2009, March:						
Steel:						
Carbon	29,000	W	--	--	W	29,000
High-strength low-alloy	39,100	7,840	--	--	11,300	58,300
Stainless and heat-resisting	162,000	63,000	--	W	6,510	232,000
Full alloy	231,000	229,000	--	--	1,510	462,000
Tool	W	W	--	--	--	W
Total	461,000	300,000	--	W	19,400	780,000
Cast irons (gray, malleable, and ductile iron)	W	20,700	--	--	763	21,500
Superalloys	51,100	W	--	W	70,200	121,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	W	2,650	--	--	--	2,650
Mill products made from metal powder ³	13,300	--	--	--	172,000	186,000
Cemented carbides and related products ⁴	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	247	247
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	66,900	28,100	72,600	78,500	16,800	263,000
Grand total	670,000	351,000	72,600	78,500	290,000	1,460,000
Stocks, March 31, 2009	323,000	312,000	2,150	13,100	849,000	1,500,000

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.

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

(Kilograms, contained molybdenum)

Country	2008			2009		
	January- December	February	January- February	January	February	January- February
Argentina	210,000	--	12,700	--	--	--
Belgium	6,910,000	779,000	1,690,000	160,000	538,000	699,000
Brazil	9,700	--	--	--	--	--
Canada	2,030,000	116,000	500,000	69,900	79,300	149,000
Chile	316,000	--	--	--	--	--
China	365,000	--	--	--	363,000	363,000
India	32,700	--	--	3,150	--	3,150
Italy	12,000	--	12,000	--	--	--
Japan	2,220,000	116,000	389,000	49,100	35,600	84,600
Korea, Republic of	694,000	86,100	108,000	31,800	32,600	64,400
Mexico	4,470,000	423,000	847,000	249,000	480,000	729,000
Netherlands	9,960,000	573,000	1,430,000	665,000	554,000	1,220,000
Niger	17,400	--	--	--	--	--
South Africa	11,400	--	--	--	--	--
United Kingdom	5,080,000	495,000	778,000	146,000	345,000	491,000
Vietnam	341,000	2,540	2,540	12,300	--	12,300
Other ²	35,000	3,230	567	300	459	759
Total	32,700,000	2,590,000	5,770,000	1,390,000	2,430,000	3,820,000

-- Zero.

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

²Includes countries with year-to-date quantities of less than 1,000 kilograms.

Source: U.S. Census Bureau.

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

(Kilograms, contained molybdenum)

Country	2008			2009		
	January- December	February	January- February	January	February	January- February
Argentina	--	--	--	--	1,400	1,400
Australia	174	--	--	--	--	--
Belgium	--	--	--	13,500	--	13,500
Canada	933,000	110,000	198,000	32,400	16,900	49,300
Colombia	1,090	--	--	551	--	551
Denmark	454	--	--	--	--	--
India	1,150	--	140	--	--	--
Korea, Republic of	14,000	--	--	--	--	--
Mexico	58,600	420	13,000	5,160	713	5,870
Netherlands	280,000	98,200	98,200	--	--	--
Peru	--	--	--	--	3,180	3,180
Philippines	700	--	--	--	--	--
South Africa	68	--	--	--	--	--
United Arab Emirates	--	--	--	3,260	--	3,260
Total	1,290,000	209,000	310,000	54,900	22,200	77,100

-- 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 2008			February 2009			January-February 2009		
	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	9,950,000	6,060,000	\$249,000	577,000	373,000	\$5,900	994,000	631,000	\$10,100
Ore and concentrates other	9,140,000	4,170,000	263,000	747,000	331,000	6,260	2,070,000	904,000	18,900
Molybdenum chemicals:									
Oxides and hydroxides	335,000	NA	12,900	NA	NA	NA	104,000	NA	1,670
Molybdates of ammonium	360,000	203,000	14,100	39,900	22,500	432	63,500	35,400	882
Molybdates (all others)	91,600	31,500	1,180	1,230	861	24	3,720	2,000	183
Molybdenum orange	373,000	NA	3,110	16,500	NA	136	34,300	NA	266
Ferromolybdenum	3,460,000	2,320,000	166,000	495,000	327,000	6,890	1,340,000	886,000	19,300
Molybdenum powders	76,000	64,100	7,070	120	120	10	5,590	2,760	594
Molybdenum unwrought	256,000	255,000	15,800	3,570	3,540	161	3,570	3,540	161
Molybdenum waste and scrap	588,000	546,000	30,900	77,800	76,700	2,460	107,000	106,000	3,670
Molybdenum wire	19,800	NA	3,060	1,460	NA	144	3,140	NA	389
Molybdenum other	483,000	NA	48,700	7,730	NA	983	18,400	NA	2,460
Total	25,100,000	XX	814,000	XX	XX	XX	4,740,000	XX	58,500

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.