

Mineral Industry Surveys

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MOLYBDENUM IN OCTOBER 2014

Domestic production of molybdenum (Mo) in concentrate in October 2014 was slightly more than the output of the previous month and about 13% more than that of October 2013. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 6,600 metric tons (t) at yearend 2013 and about 6,900 t at the end of October.

According to Ryan's Notes, the October monthly average price range for U.S. ferromolybdenum (FeMo) was \$13.517 to \$14.400 per pound of molybdenum content, compared with \$15.333 to \$15.844 per pound in September. European FeMo monthly averages ranged from \$25.739 to \$26.256 per kilogram (kg) of molybdenum content in October compared with \$30.272 to \$30.656 per kg in September. In October, worldwide molybdenum oxide (MoO₃) prices ranged from \$10.711 to \$11.317 per pound compared with \$12.344 to \$12.661 per pound in September.

Thompson Creek Metals Co. Inc. announced that mining operations ceased at its Thompson Creek molybdenum mine near Challis, ID. Mining of Phase 7 of the mine plan was completed in August and the company announced that the remaining stockpiles of ore would continue to be processed through December. Thereafter, the mine was expected to be placed on care-and-maintenance status. The Thompson Creek

Mine produced 6,700 t of Mo in the first 9 months of 2014 (Thompson Creek Metals Co. Inc., 2014a, b).

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References Cited

- Thompson Creek Metals Co. Inc., 2014a, Thompson Creek Metals Company announces third quarter 2014 operating results: Denver, CO, Thompson Creek Metals Co. Inc. news release, October 14, 3 p. (Accessed January 16, 2015, at http://www.thompsoncreekmetals.com/i/pdf/nr/2014-10-14_NR_4Kqb3N.pdf.)
- Thompson Creek Metals Co. Inc., 2014b, Thompson Creek reports significantly improved third quarter 2014 financial results: Denver, CO, Thompson Creek Metals Co. Inc. news release, November 10, 3 p. (Accessed January 15, 2015, at http://www.thompsoncreekmetals.com/i/pdf/nr/2014-11-10_TC_NR.pdf.)

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE
STATISTICS¹

(Metric tons, contained molybdenum)

Period	Production	Shipments ^{2,3}
2013:		
January–October	51,400	51,500
October	5,070	5,420
November	4,800	4,570
December	4,560	4,850
January–December	60,800	60,900
2014:		
January	5,050	4,960
February	4,640	4,680
March	5,160	5,110
April	5,570	5,580
May	6,530	6,500
June	5,800	5,940
July	5,630	5,810
August	5,470	5,300
September	5,590	5,540
October	5,710	5,830
January–October	55,200	55,300

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

²As reported by producers.

³Shipments include sales to domestic customers, sales for export, and transfers to other company plants.

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
2014:						
September:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	W	7,380	--	--	--	7,380
Stainless and heat-resisting	188,000	55,500	--	(3)	W	244,000
Full alloy	281,000	254,000	--	--	W	535,000
Tool	W	W	--	--	--	W
Total	469,000	317,000	--	(3)	W	786,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	75,300	75,300
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	120	W	--	--	--	120
Mill products made from metal powder ⁴	--	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	W
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	--	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	141,000	48,000	1,280	(3)	338,000	528,000
Grand total	688,000	365,000	1,280	(3)	424,000	1,480,000
Stocks, September 30, 2014	527,000	352,000	3,020	(6)	(6)	1,770,000
October:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	W	7,380	--	--	--	7,380
Stainless and heat-resisting	169,000	54,700	--	(3)	W	224,000
Full alloy	266,000	253,000	--	--	W	519,000
Tool	W	W	--	--	--	W
Total	435,000	315,000	--	(3)	W	751,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	71,500	71,500
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	158	W	--	--	--	158
Mill products made from metal powder ⁴	--	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	W
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	--	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	142,000	49,600	407	(3)	318,000	510,000
Grand total	655,000	365,000	407	(3)	400,000	1,420,000
Stocks, October 31, 2014	552,000	333,000	2,610	(6)	(6)	1,790,000

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	2013			2014		
	January– December	October	January– October	September	October	January– October
Antigua and Barbuda	--	--	--	--	--	22,400
Argentina	--	--	--	--	--	5,110
Australia	214,000	--	214,000	--	--	--
Austria	31,800	--	31,800	--	--	--
Belgium	3,770,000	455,000	2,660,000	1,600,000	3,200,000	10,200,000
Brazil	690,000	40,000	604,000	32,200	--	319,000
Canada	2,070,000	234,000	1,760,000	153,000	176,000	1,940,000
Chile	--	--	--	677,000	68,000	1,580,000
China	1,520,000	190,000	1,210,000	164,000	90,000	1,050,000
Germany	172,000	--	172,000	--	--	89
India	1,310,000	43,700	1,060,000	31,700	56,100	451,000
Israel	--	--	--	--	--	795
Japan	4,900,000	490,000	3,830,000	649,000	504,000	5,460,000
Korea, Republic of	898,000	91,700	798,000	97,300	97,700	1,160,000
Mexico	9,160,000	716,000	7,620,000	525,000	656,000	6,210,000
Netherlands	21,100,000	2,120,000	18,100,000	1,510,000	1,510,000	14,300,000
Peru	24,700	--	24,700	--	--	--
Philippines	2,180	--	2,180	--	--	--
Singapore	1,370	--	1,370	--	--	--
South Africa	194,000	20,000	194,000	--	--	--
Taiwan	24,900	--	24,900	--	18,200	27,200
Thailand	46,700	7,260	44,300	--	--	13,300
United Kingdom	2,380,000	79,200	1,670,000	788,000	505,000	8,920,000
Venezuela	210	210	210	--	--	--
Vietnam	57,100	--	42,500	--	--	56,800
Total	48,600,000	4,480,000	40,100,000	6,230,000	6,870,000	51,800,000

-- 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	2013			2014		
	January– December	October	January– October	September	October	January– October
Argentina	382	--	--	--	--	--
Canada	635,000	71,300	581,000	41,400	41,000	490,000
Chile	1,480	--	--	--	--	--
Colombia	238	--	238	133	--	400
Denmark	513	--	342	--	--	171
Israel	168	--	168	--	--	--
Mexico	156,000	34,100	121,000	--	--	26,500
Netherlands	48,600	--	48,600	--	--	--
Panama	13,200	--	13,200	--	--	--
Peru	6,550	554	6,550	--	--	--
Vietnam	--	--	--	--	--	135
Total	862,000	106,000	771,000	41,600	41,000	517,000

-- 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 2013			October 2014			January–October 2014		
	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	6,870,000	4,160,000	\$47,100	994,000	594,000	\$14,700	6,460,000	3,940,000	\$94,200
Ore and concentrates other	18,100,000	8,890,000	250,000	1,430,000	728,000	20,600	16,300,000	8,380,000	231,000
Molybdenum chemicals:									
Oxides and hydroxides	283,000	NA	5,390	60,100	NA	1,150	390,000	NA	7,380
Molybdates of ammonium	1,080,000	611,000	17,000	123,000	69,500	2,170	1,030,000	579,000	18,000
Molybdates (all others)	3,770	1,550	190	--	--	--	13,700	5,450	193
Molybdenum orange	274,000	NA	2,430	49,600	NA	266	336,000	NA	2,550
Ferromolybdenum	6,120,000	4,090,000	108,000	711,000	477,000	13,900	6,360,000	4,250,000	126,000
Molybdenum powders	448,000	433,000	16,000	54,000	53,100	1,960	439,000	418,000	16,300
Molybdenum unwrought	762,000	747,000	22,100	103,000	102,000	3,300	1,050,000	1,020,000	29,600
Molybdenum waste and scrap	739,000	690,000	21,900	93,900	92,300	2,910	1,060,000	1,040,000	32,200
Molybdenum wire	22,700	NA	3,490	684	--	110	12,900	NA	1,970
Molybdenum other	298,000	NA	20,800	38,200	--	2,740	352,000	NA	23,700
Total	35,000,000	XX	514,000	3,660,000	2,120,000	63,700	33,800,000	XX	582,000

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.