

Mineral Industry Surveys

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TUNGSTEN IN MARCH 2006

During the quarter ending March 31, 2006, total U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 11% higher than production during the quarter ending December 31, 2005, and 3% higher than that produced during the quarter ending March 31, 2005, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials during the quarter ending March 31, 2006, was 12% higher than consumption during the quarter ending December 31, 2005, and 6% higher than that consumed during the quarter ending March 31, 2005. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

U.S. trade data for February 2006 are published in this issue.

Update

Prices for tungsten ore concentrates, in dollars per metric ton unit from Metal Bulletin, are listed below. Prices in dollars per short ton unit were converted from metric-ton-unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ore concentrates with a minimum tungsten trioxide (WO₃) content of 65%. The prices for April 1-30, 2006, are as follows:

Low—\$160/metric ton unit WO₃ (\$145/short ton unit WO₃)
High—\$200/metric ton unit WO₃ (\$181/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consump- tion	Imports for consumption	Stocks, end of period Industry ²	U.S. Gov- ernment ³		Net production ⁴	Reported consump- tion ⁵	Stocks, end of period Industry ⁶	U.S. Gov- ernment ³
2005:									
March	W	193	W	27,300	302 ^r	703 ^r	834 ^r	700 ^r	685
April	W	230	W	27,200	337 ^r	633 ^r	905 ^r	716 ^r	611
May	W	118	W	27,200	444 ^r	724 ^r	1,030 ^r	776 ^r	564
June	W	140	W	27,200	386 ^r	739 ^r	923 ^r	772 ^r	564
July	W	122	W	27,100	324 ^r	538 ^r	831 ^r	749 ^r	564
August	W	135	W	26,700	516 ^r	743 ^r	1,040	837 ^r	546
September	W	73	W	26,700	295 ^r	660 ^r	915 ^r	847 ^r	518
October	W	224	W	26,500	383 ^r	651 ^r	854 ^r	880 ^r	403
November	W	227	W	26,100	411 ^r	609 ^r	810 ^r	828 ^r	403
December	W	249	W	26,100	296 ^r	561 ^r	872 ^r	800 ^r	282
January-December	W	2,080	XX	XX	4,550 ^r	7,810 ^r	10,800	XX	XX
2006:									
January	W	187	W	26,000	441 ^r	647 ^r	965 ^r	767 ^r	266
February	W	197	W	25,900	311 ^r	604 ^r	906 ^r	653 ^r	266
March	W	NA	W	25,700	400	764	961	721	266
Total	W	NA	XX	XX	1,150	2,010	2,830	XX	XX

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

²Reported by consumers.

³Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

⁴Net production of tungsten metal powder and tungsten carbide powder.

⁵Includes estimates and scrap.

⁶Data for tungsten metal powder and tungsten carbide powder reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH¹

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period ²
2005:			
March	W	979	W
April	W	828	59
May	W	814	110
June	W	864	W
July	W	652	103
August	W	810	118
September	W	681	W
October	W	843	170
November	W	(3)	153
December	W	(3)	W
January-December	W	9,530	XX
2006:			
January	W	991 ^r	W
February	W	783 ^r	W
March	W	1,000	W
Total	W	2,780	XX

^rRevised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

²Producers and consumers.

³Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2006				2006		
	2005 ^r	February ^r	March	Year to date	2005	February ^r	March
Metal powder	3,150	194	328	826	395 ^r	310	341
Tungsten carbide powder	4,660	410	436	1,190	405	342	380
Total	7,810	604	764	2,010	800 ^r	653	721

^rRevised.

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

²Receipts plus gross production less quantity used to make other products in table.

³Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data; not included in "Total."

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1,2,3}

(Metric tons, tungsten content)

End use	2006		
	February	March	Year to date
Steels	21 ^r	21	64
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	495 ^r	500	1,510
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	390 ^r	440	1,260
Total	906 ^r	961	2,830

^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

²Does not include materials used in making primary tungsten products.

³Includes estimates.

⁴Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁵Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS¹

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2005:						
March	20	W	495 ^r	W	6	834 ^r
April	19 ^r	W	494 ^r	W	6	905 ^r
May	20	W	494 ^r	W	6	1,030 ^r
June	20	W	500 ^r	W	6	923 ^r
July	19	W	493 ^r	W	6	831 ^r
August	19	W	497 ^r	W	6	1,040
September	19	W	490 ^r	W	6	915 ^r
October	19	W	493 ^r	W	6	854 ^r
November	19	W	494 ^r	W	6	810 ^r
December	19	W	493 ^r	W	6	872 ^r
January-December	231	W	5,930 ^r	W	73	10,800
2006:						
January	19	W	507 ^r	W	6	965 ^r
February	19	W	488 ^r	W	6	906 ^r
March	19	W	493	W	6	961
Total	56	W	1,490	W	18	2,830
Stocks:						
2005:						
March	44	25	351 ^r	32 ^r	9	461 ^r
April	22	28	362 ^r	36 ^r	9	455 ^r
May	20	26	404 ^r	38 ^r	9	497 ^r
June	27	28	401 ^r	38 ^r	9	504 ^r
July	26	28	415 ^r	31 ^r	9	508 ^r
August	25	32	386 ^r	31 ^r	9	482 ^r
September	24	29	401 ^r	30 ^r	9	493 ^r
October	23	26	436 ^r	33 ^r	9	527 ^r
November	21	26	426 ^r	30 ^r	9	512 ^r
December	21	26	394 ^r	29 ^r	9	478 ^r
2006:						
January	20	26	383 ^r	28 ^r	9	466 ^r
February	20	26	387 ^r	34 ^r	9	476 ^r
March	20	26	383	30	9	468

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2005	2,080	1,920	385	1,530	1,690	1,480	9,090	XX
2006:								
January	187	164	15	162	117	88	734	734
February:								
Australia	24	--	--	--	--	--	24	24
Austria	(3)	--	--	(3)	--	2	2	3
Belgium	--	--	--	(3)	--	(3)	(3)	1
Bolivia	28	--	--	--	--	--	28	71
Canada	48	--	--	10	31	--	89	206
China	--	124	32	47	48	13	264	614
Czech Republic	--	--	--	--	--	(3)	(3)	8
France	--	--	--	--	(3)	(3)	(3)	1
Germany	--	17	--	43	(3)	5	66	127
Hong Kong	--	--	--	--	--	1	1	1
Hungary	--	--	--	--	--	(3)	(3)	(3)
India	--	--	--	--	--	(3)	(3)	1
Israel	--	--	--	7	45	2	55	86
Italy	--	--	--	--	--	(3)	(3)	(3)
Japan	--	--	--	2	--	2	4	5
Korea, Republic of	--	--	--	13	1	(3)	14	37
Malaysia	--	--	--	--	--	--	--	(3)
Mexico	15	--	--	--	--	(3)	15	15
Netherlands	--	--	--	--	--	(3)	(3)	(3)
Portugal	31	--	--	--	--	--	31	103
Russia	--	--	--	--	--	16	16	16
Rwanda	35	--	--	--	--	--	35	56
Singapore	--	--	--	--	--	3	3	3
South Africa	--	--	--	--	--	6	6	6
Spain	--	--	--	--	--	(3)	(3)	(3)
Sweden	--	--	--	--	--	(3)	(3)	(3)
Switzerland	--	--	--	--	--	--	--	(3)
Taiwan	--	--	--	--	--	(3)	(3)	(3)
Thailand	16	--	--	--	--	--	16	16
United Kingdom	--	--	--	(3)	--	(3)	(3)	1
Total	197	141	32	122	125	52	669	1,400
Total, year to date	384	306	47	284	242	139	1,400	XX

XX Not applicable. -- Zero.

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

²Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than ½ unit.

Note: Imports of waste and scrap in February 2006 totaled 304 metric tons, tungsten content, to give a year-to-date total of 441 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total	Total, year to date
2005	52	774	750	1,560	1,950	5,080	XX
2006:							
January	84	21	65	94	168	431	431
February:							
Australia	--	--	1	1	--	2	3
Belgium	--	--	--	1	(4)	1	2
Brazil	--	--	2	(4)	(4)	2	9
Canada	--	--	5	5	15	26	56
China	--	--	(4)	(4)	12	12	97
Colombia	--	--	--	--	(4)	(4)	1
Czech Republic	--	--	29	(4)	5	35	66
Denmark	--	--	--	2	--	2	2
France	--	--	4	8	(4)	12	14
Germany	--	20	37	34	4	95	157
Hungary	--	--	--	--	5	5	7
India	--	--	(4)	(4)	1	2	4
Ireland	--	--	--	1	(4)	1	3
Israel	--	--	5	--	(4)	5	6
Italy	--	--	2	(4)	(4)	2	12
Japan	--	--	11	(4)	6	17	29
Korea, Republic of	--	--	(4)	2	(4)	2	2
Malaysia	--	--	--	--	4	4	6
Mexico	--	3	(4)	--	16	18	21
Netherlands	--	19	(4)	--	20	39	108
Philippines	--	--	--	--	(4)	(4)	14
Saudi Arabia	--	--	--	--	1	1	1
Singapore	--	--	2	(4)	9	10	12
South Africa	--	--	(4)	1	--	1	22
Spain	--	--	(4)	--	1	1	2
Sweden	--	--	(4)	1	20	21	26
Taiwan	--	--	4	1	44	49	51
Thailand	--	--	--	--	--	--	1
United Kingdom	--	--	2	15	43	61	118
Venezuela	--	--	7	2	(4)	9	11
Other	--	--	1	1	1	3	4
Total	--	41	114	75	207	437	867
Total, year to date	84	62	178	168	375	867	XX

XX Not applicable. -- Zero.

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

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than ½ unit.

Note: Estimated exports of waste and scrap in February 2006 totaled 72 metric tons, tungsten content, to give a year-to-date total of 634 metric tons, tungsten content.

Source: U.S. Census Bureau.