

Mineral Industry Surveys

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TUNGSTEN IN MAY 2006

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 3% higher during January through May 2006 than net production during the same period in 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 January through May 2006 was 5% higher than that consumed during the same period in 2005. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for January through April 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 (WO_3) content of 65%. The prices for June 1-30, 2006, are as follows:

Low—\$150/metric ton unit WO_3 (\$136/short ton unit WO_3)
High—\$170/metric ton unit WO_3 (\$154/short ton unit WO_3)

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:									
May	W	118	W	27,200	444	724	1,030	776	564
June	W	140	W	27,200	386	739	923	772	564
July	W	122	W	27,100	324	538	831	749	564
August	W	135	W	26,700	516	743	1,040	837	546
September	W	73	W	26,700	295	660	915	847	518
October	W	224	W	26,500	383	651	854	880	403
November	W	227	W	26,100	411	609	810	828	403
December	W	249	W	26,100	296	561	872	800	282
January-December	W	2,080	XX	XX	4,550	7,810	10,800	XX	XX
2006:									
January	W	187	W	26,000	441	647	967	767	266
February	W	197	W	25,900	311	604	908	653	266
March	W	173	W	25,700	400	764	963	721	266
April	W	133	W	25,000	404	717	992 [†]	741	266
May	W	NA	W	24,500	442	674	1,000	724	266
Total	W	NA	XX	XX	2,000	3,410	4,830	XX	XX

[†]Revised. 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:			
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	W
February	W	783	W
March	W	1,000	W
April	W	930	177
May	W	1,150	142
Total	W	4,860	XX

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	April	May	Year to date	2005	April	May
Metal powder	3,150	308	254	1,390	395	388	390
Tungsten carbide powder	4,660	409	419	2,020	405	353	334
Total	7,810	717	674	3,410	800	741	724

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		
	April	May	Year to date
Steels	21	22	106
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	492	494	2,490
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	479 ^r	487	2,230
Total	992 ^r	1,000	4,830

^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:						
May	20	W	494	W	6	1,030
June	20	W	500	W	6	923
July	19	W	493	W	6	831
August	19	W	497	W	6	1,040
September	19	W	490	W	6	915
October	19	W	493	W	6	854
November	19	W	494	W	6	810
December	19	W	493	W	6	872
January-December	231	W	5,930	W	73	10,800
2006:						
January	19	W	506	W	6	967
February	19	W	488	W	6	908
March	18	W	492	W	6	963
April	19	W	484	W	6	992 ^r
May	19	W	486	W	6	1,000
Total	93	W	2,460	W	30	4,830
Stocks:						
2005:						
May	20	26	404	38	9	497
June	27	28	401	38	9	504
July	26	28	415	31	9	508
August	25	32	386	31	9	482
September	24	29	401	30	9	493
October	23	26	436	33	9	527
November	21	26	426	30	9	512
December	21	26	394	29	9	478
2006:						
January	20	26	384	28	9	467
February	24 ^r	26	387	34	9	481 ^r
March	24 ^r	26	384	30	9	472 ^r
April	23 ^r	26	383	29 ^r	9	470 ^r
May	22	25	385	27	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:								
February	197	141	32	122	125	52	669	1,400
March	173	239	--	105	143	110	770	2,170
April:								
Australia	--	--	--	--	--	(3)	(3)	24
Austria	--	--	--	--	--	2	2	7
Belgium	--	--	--	--	(3)	(3)	(3)	3
Bolivia	43	--	--	--	--	--	43	171
Canada	--	--	--	12	20	--	32	321
China	--	372	54	56	101	87	669	1,690
Congo (Kinshasa)	14	--	--	--	--	--	14	21
Czech Republic	--	--	--	--	1	(3)	1	10
France	--	--	--	(3)	1	(3)	1	4
Germany	--	17	--	65	1	7	90	245
Hong Kong	--	--	--	--	--	1	1	2
Hungary	--	--	--	--	--	(3)	(3)	1
India	--	--	--	--	--	(3)	(3)	1
Israel	--	--	--	21	26	12	59	211
Japan	--	--	--	1	(3)	3	5	16
Korea, Republic of	--	--	--	21	--	(3)	21	80
Mexico	--	--	--	--	--	--	--	15
Portugal	62	--	--	--	--	--	62	227
Russia	--	--	--	--	--	1	1	18
Rwanda	15	--	--	--	--	--	15	70
Singapore	--	--	--	--	--	(3)	(3)	3
South Africa	--	--	--	--	--	--	--	6
Spain	--	--	--	--	--	(3)	(3)	4
Sweden	--	--	--	--	17	(3)	17	17
Thailand	--	--	--	--	--	--	--	36
Ukraine	--	--	--	--	--	--	--	1
United Kingdom	--	--	--	--	(3)	(3)	(3)	1
Uzbekistan	--	--	--	--	--	34	34	34
Other	--	--	--	--	(3)	(3)	(3)	1
Total	133	389	54	176	167	149	1,070	3,240
Total, year to date	690	934	101	565	552	399	3,240	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 April 2006 totaled 77 metric tons, tungsten content, to give a year-to-date total of 662 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:							
February	--	41	114	75	207	437	867
March	1	3	74	72	268	418	1,280
April:							
Australia	--	--	(4)	1	--	1	7
Austria	--	--	--	--	--	--	1
Belgium	--	--	(4)	1	(4)	1	3
Brazil	--	--	(4)	1	1	2	11
Canada	--	--	8	7	7	22	114
China	--	--	(4)	(4)	125	126	243
Colombia	--	--	--	--	(4)	(4)	2
Czech Republic	--	--	--	(4)	2	2	71
Denmark	--	--	--	(4)	--	(4)	2
France	--	--	2	9	15	26	45
Germany	--	38	43	23	29	133	355
Hungary	--	--	--	--	(4)	(4)	12
India	--	--	--	2	(4)	2	10
Indonesia	--	--	(4)	(4)	(4)	(4)	1
Ireland	--	--	--	1	(4)	1	6
Israel	--	--	(4)	--	(4)	1	8
Italy	--	--	3	1	1	5	21
Japan	--	--	1	3	23	28	70
Korea, Republic of	(4)	--	--	2	(4)	3	9
Luxembourg	--	--	--	(4)	--	(4)	1
Malaysia	--	--	--	--	(4)	(4)	10
Mexico	--	--	1	(4)	13	14	43
Netherlands	--	--	--	--	706	706	917
Norway	--	--	(4)	1	--	1	1
Peru	--	--	(4)	(4)	--	1	3
Philippines	--	--	--	--	8	8	22
Poland	--	--	--	--	--	--	1
Saudi Arabia	--	--	--	--	(4)	(4)	2
Singapore	--	--	2	(4)	2	4	19
South Africa	--	--	(4)	6	--	6	28
Spain	--	--	(4)	--	3	3	6
Sweden	--	--	--	--	1	1	35
Taiwan	--	--	3	1	40	44	99
Thailand	--	--	--	--	--	--	1
Turkey	--	--	(4)	--	--	(4)	1
United Kingdom	--	--	3	26	37	67	288
Venezuela	--	--	(4)	6	(4)	7	27
Other	--	--	1	--	(4)	1	5
Total	(4)	38	70	93	1,010	1,220	2,500
Total, year to date	85	103	322	333	1,660	2,500	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 April 2006 totaled 43 metric tons, tungsten content, to give a year-to-date total of 708 metric tons, tungsten content.

Source: U.S. Census Bureau.