

Mineral Industry Surveys

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TUNGSTEN IN APRIL 2004

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 49% lower during January through April 2004 than net production during the same period in 2003, 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 in January through April 2004 was 4% lower than that consumed during the same period in 2003. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for April 2004 will be published in a subsequent 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 May 1-31, 2004, are as follows:

Low—\$52/metric ton unit WO₃ (\$47/short ton unit WO₃)
High—\$58/metric ton unit WO₃ (\$53/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consumption	Imports for consumption	Stocks, end of period			Net production ⁴	Reported consumption ⁵	Stocks, end of period	
			Industry ²	U.S. Government ³			Industry ⁶	U.S. Government ³	
2003:									
April	W	377	W	29,800	398	1,110	891	785	894
May	W	679	W	29,600	311	1,120	941	746	808
June	W	365	W	29,600	292	575	745	722	784
July	W	463	W	29,600	302	523	775	655	759
August	W	427	W	29,600	331	516	739	637	759
September	W	530	W	29,500	252	567	753	661	767
October	W	223	W	29,500	314	536	755	780	767
November	W	244	W	29,400	311	476	679	813	767
December	W	402	W	29,400	265	509	697	806	765
January-December	W	4,690	XX	XX	4,010	9,030	9,400	XX	XX
2004:									
January	W	328	W	28,900	318	535	788	834	757
February	W	92	W	28,800	220	560	797	769	743
March	W	157	W	28,800	203	534	803	737	736
April	W	NA	W	28,500	220	538	802	719	730
Total	W	NA	XX	XX	961	2,170	3,190	XX	XX

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
2003:			
April	W	W	44
May	W	724	38
June	W	710	59
July	W	W	45
August	W	W	44
September	W	839	42
October	W	1,010	W
November	W	933	W
December	W	W	W
January-December ³	W	6,590	XX
2004:			
January	W	790	W
February	W	650	W
March	W	W	W
April	W	725	W
Total ³	W	2,170	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.

³Does not include withheld data.

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

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2004				2004		
	2003	March	April	Year to date	2003	March	April
Metal powder	5,350	213	197	867	544	477	464
Tungsten carbide powder (made from metal powder)	3,680	321	342	1,300	263	260	254
Total	9,030	534	538	2,170	807	737	718

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

²Gross 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	2004		
	March	April	Year to date
Steels	22	22	88
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	438	435	1,760
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	343	345	1,340
Total	803	802	3,190

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 pa

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:						
2003:						
April	24	W	440	W	6	891
May	24	W	448	W	6	941
June	22	W	434	W	6	745
July	21	W	441	W	6	775
August	23	W	438	W	6	739
September	25	W	447	W	6	753
October	23	W	444	W	6	755
November	22	W	436	W	6	679
December	22	W	445	W	6	697
January-December	275	W	5,300	W	72	9,400
2004:						
January	21	W	452	W	6	788
February	21	W	450	W	6	797
March	22	W	444	W	6	803
April	21	W	443	W	6	802
Total	86	W	1,790	W	24	3,190
Stocks:						
2003:						
April	19	34	275	28	9	364
May	33	35	289	27	9	393
June	27	34	325	28	9	422
July	25	31	328	34	9	427
August	32	33	334	31	9	438
September	28	30	276	25	9	368
October	25	30	331	21	9	417
November	33	30	347	28	9	447
December	31	33	301	24	9	398
2004:						
January	30	33	312	25	9	409
February	29	31	307	23	9	399
March	27	31	308	26	9	401
April	26	30	304	29	9	398

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	Ferro-tungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2003	4,690	2,640	377	1,090	1,370	1,020	11,200	XX
2004:								
January	328	387	31	88	144	64	1,040	1,040
February	92	37	15	146	176	96	562	1,600
March:								
Austria	--	--	--	--	--	2	2	7
Belgium	--	--	--	--	--	--	--	(3)
Bolivia	--	--	--	--	--	--	--	88
Canada	127	--	--	--	57	--	184	433
China	--	--	15	69	77	85	246	1,080
Congo (Kinshasa)	13	--	--	--	--	--	13	13
Czech Republic	--	--	--	--	--	1	1	5
France	--	--	--	--	(3)	(3)	1	5
Germany	--	17	--	52	12	3	84	195
Hong Kong	--	--	--	--	--	1	1	2
Hungary	--	--	--	--	--	(3)	(3)	1
India	--	--	--	--	--	(3)	(3)	1
Israel	--	--	--	--	32	(3)	32	108
Italy	--	--	--	--	32	(3)	32	32
Japan	--	--	--	(3)	(3)	6	7	19
Kenya	--	--	--	--	--	--	--	26
Korea, Republic of	--	--	--	3	3	(3)	6	26
Mexico	--	--	--	--	--	--	--	(3)
Netherlands	--	--	--	--	--	(3)	(3)	(3)
Portugal	--	--	--	--	--	--	--	68
Russia	--	--	--	--	--	32	32	33
Rwanda	--	--	--	--	--	--	--	92
Singapore	--	--	--	--	--	(3)	(3)	(3)
Taiwan	--	--	--	--	--	4	4	4
Thailand	16	--	--	--	--	--	16	26
United Kingdom	--	--	--	--	--	(3)	(3)	(3)
Other	--	--	--	--	--	(3)	(3)	(3)
Total	157	17	15	124	213	136	662	2,270
Total, year to date	576	441	61	359	534	295	2,270	XX

-- 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 1/2 unit.

Note: Imports of waste and scrap in March 2004 totaled 200 metric tons, tungsten content, to give a year-to-date total of 278 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
2003	20	99	1,130	1,700	1,440	4,390	XX
2004:							
January	(4)	18	45	84	89	237	237
February	(4)	18	51	121	160	349	586
March:							
Australia	--	--	1	1	(4)	2	4
Austria	--	--	--	(4)	--	(4)	(4)
Belgium	--	--	(4)	5	(4)	5	6
Brazil	--	--	(4)	(4)	(4)	1	6
Canada	--	--	4	11	5	20	58
Chile	--	--	--	--	--	--	(4)
China	2	--	4	--	(4)	6	9
Columbia	--	--	--	--	1	1	2
Czech Republic	--	--	--	--	1	1	5
Finland	--	--	--	--	--	--	(4)
France	--	--	2	13	4	19	69
Georgia	--	--	--	--	(4)	(4)	(4)
Germany	--	18	8	4	2	32	165
Hong Kong	--	--	--	--	(4)	(4)	3
Hungary	--	--	--	--	48	48	70
India	--	--	(4)	1	2	3	6
Ireland	--	--	--	2	--	2	4
Israel	--	--	--	--	1	1	10
Italy	--	--	2	2	(4)	4	24
Japan	--	--	1	3	5	10	28
Kenya	--	--	--	--	--	--	(4)
Korea, Republic of	--	--	1	3	1	5	13
Luxembourg	--	--	--	1	--	1	7
Mexico	--	--	--	--	52	52	139
Netherlands	--	--	--	--	7	7	19
Peru	--	--	--	1	--	1	1
Philippines	--	--	--	--	1	1	1
Poland	--	--	--	--	(4)	(4)	(4)
Saudi Arabia	--	--	--	--	(4)	(4)	(4)
Singapore	--	--	--	(4)	(4)	(4)	2
Slovakia	--	--	--	--	(4)	(4)	(4)
Spain	--	--	(4)	(4)	2	2	11
Sweden	--	--	(4)	--	(4)	(4)	1
Switzerland	--	--	--	1	(4)	1	12
Taiwan	--	--	3	(4)	17	20	69
Thailand	--	--	(4)	1	--	1	1
Turkey	--	--	1	--	--	1	1
United Arab Emirates	--	--	(4)	--	(4)	(4)	1
United Kingdom	--	--	5	59	1	65	152
Venezuela	--	--	--	--	--	--	(4)
Other	--	--	--	--	(4)	(4)	1
Total	2	18	34	108	153	315	901
Total, year to date	3	54	130	313	402	901	XX

-- 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 1/2 unit.

Note: Estimated exports of waste and scrap in March 2004 totaled 15 metric tons, tungsten content, to give a year-to-date total of 191 metric tons, tungsten content.

Source: U.S. Census Bureau.