

Mineral Industry Surveys

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TUNGSTEN IN JANUARY 2004

January 2004 U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was slightly lower than that of December 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 2004 was approximately equal to that consumed in December 2003. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for January 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 (WO_3) content of 65%. The prices for February 1-29, 2004, are as follows:

Low—\$42/metric ton unit WO_3 (\$38/short ton unit WO_3)

High—\$50/metric ton unit WO_3 (\$45/short ton unit WO_3)

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:									
January	W	250	W	29,800	362	1,010	788	674	927
February	W	253	W	29,800	403	965	750	718	927
March	W	474	W	29,800	476	1,120	777	779	913
April	W	377	W	29,800	399	1,110	863	785	894
May	W	679	W	29,600	312	1,120	904	746	808
June	W	365	W	29,600	293	575	719	722	784
July	W	463	W	29,600	301	523	735	655	759
August	W	427	W	29,600	329	516	700	637	759
September	W	530	W	29,500	253	567	720	661	767
October	W	223	W	29,500	380	548	707 [†]	626	767
November	W	244	W	29,400	357	558	698 [†]	628	767
December	W	402	W	29,400	374	607	705	592	765
January-December	W	4,690	XX	XX	4,240	9,220	9,070 [†]	XX	XX
2004:									
January	W	NA	W	28,900	367	587	722	605	757

[†] 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
2003:			
January	W	776	W
February	W	750	61
March	W	851	73
April	W	W	44
May	W	724	38
June	W	710	59
July	W	W	45
August	W	W	49
September	W	839	42
October	W	846	36
November	W	835	W
December	W	W	35
Total ³	W	6,330	XX
2004:			
January	W	917	W

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			2003	2004
	2003	January	Year to date	2003	January
Metal powder	5,330	252	252	374	392
Tungsten carbide powder (made from metal powder)	3,890	334	334	219	213
Total	9,220	587	587	592	605

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	2003		2004
	December	Year to date	January
Steels	21	261	20
Superalloys	25	318	28
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	405	4,760 ^r	404
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	255	3,720	270
Total	705	9,070 ^r	722

^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:						
2003:						
January	21	W	400	W	6	788
February	23	W	395	W	6	750
March	21	W	396	W	6	777
April	23	W	404	W	6	863
May	22	W	404	W	6	904
June	20	W	401	W	6	719
July	20	W	393	W	6	735
August	22	W	391	W	6	700
September	23	W	406	W	6	720
October	21	W	389 ^r	W	6	707 ^r
November	20	W	391 ^r	W	6	698 ^r
December	20	W	407	W	6	705
Total	257	W	4,780 ^r	W	72	9,070 ^r
2004:						
January	20	W	407	W	6	722
Stocks:						
2003:						
January	25	24	295	19	9	372
February	20	22	292	20	9	362
March	20	20	285	27	9	361
April	15	24	288	22	9	358
May	29	26	292	21	9	376
June	23	24	304	21	9	381
July	21	22	294	27	9	373
August	28	23	296	25	9	381
September	25	20	284	19	9	357
October	21	21	293 ^r	15	9	359 ^r
November	29	21	300 ^r	22	9	380 ^r
December	27	23	295 ^r	18	9	372 ^r
2004:						
January	26	23	293	17	9	369

^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	Ferro-tungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total year to date
2002	4,090	2,400	480	642	901	1,190	9,700	XX
2003:								
October	223	237	162	112	102	67	904	9,600
November	244	65	--	90	103	15	516	10,100
December:								
Australia	--	--	--	--	--	--	--	10
Austria	--	--	--	--	(3)	3	3	51
Belgium	--	--	--	(3)	--	--	(3)	5
Bolivia	26	--	--	--	--	--	26	350
Canada	303	--	--	11	49	2	364	3,870
China	--	94	--	189	44	156	483	4,590
Congo (Kinshasa)	14	--	--	--	--	--	14	28
Czech Republic	--	--	--	--	--	(3)	(3)	2
France	--	--	--	--	(3)	--	(3)	4
Germany	--	--	--	8	(3)	5	13	462
Hong Kong	--	--	--	--	--	(3)	(3)	7
Hungary	--	--	--	--	--	(3)	(3)	4
India	--	--	--	--	--	(3)	(3)	3
Israel	--	--	--	19	69	1	89	474
Japan	--	--	--	4	--	5	8	148
Kenya	--	--	--	--	--	--	--	37
Korea, Republic of	--	--	--	3	9	(3)	12	140
Luxembourg	--	--	--	--	--	--	--	7
Mongolia	--	--	--	--	--	--	--	10
Netherlands	--	--	--	--	--	(3)	(3)	3
Peru	--	--	--	--	--	--	--	22
Portugal	48	--	--	--	--	--	48	589
Russia	--	--	--	--	--	(3)	(3)	40
Rwanda	--	--	--	--	--	--	--	127
Singapore	--	--	--	--	--	--	--	9
Sweden	--	--	--	--	--	(3)	(3)	7
Taiwan	--	--	--	--	--	--	--	16
Tanzania	--	--	--	--	--	--	--	11
Thailand	--	--	--	--	--	--	--	68
Uganda	--	--	--	--	--	--	--	8
United Kingdom	--	--	--	--	--	(3)	(3)	54
Vietnam	11	--	--	--	--	--	11	33
Other	--	--	--	--	--	--	--	3
Total	402	94	--	233	172	172	1,070	11,200
Total, year to date	4,690	2,640	377	1,090	1,370	1,020	11,200	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 1/2 unit.

Note: Imports of waste and scrap in December 2003 totaled 150 metric tons, tungsten content, to give a year-to-date total of 1,120 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
2002	94	69	496	1,250	1,050	2,960	XX
2003:							
October	1	--	132	89	134	356	3,770
November	11	19	68	106	124	329	4,100
December:							
Australia	--	--	1	1	19	21	58
Belgium	--	--	--	(4)	--	(4)	47
Brazil	--	--	(4)	--	(4)	(4)	45
Canada	--	--	2	3	4	8	182
Chile	--	--	(4)	--	--	(4)	3
China	--	--	--	1	3	4	24
Czech Republic	--	--	--	--	(4)	(4)	31
Estonia	--	--	--	--	--	--	11
France	(4)	--	1	3	3	7	205
Germany	--	--	14	14	(4)	28	1,240
Hong Kong	--	--	--	--	1	1	9
Hungary	--	--	--	--	13	13	16
India	--	--	69	3	1	73	421
Ireland	--	--	--	1	(4)	1	16
Israel	--	--	(4)	--	--	(4)	125
Italy	--	--	1	1	1	3	77
Japan	(4)	--	1	(4)	11	12	168
Korea, Republic of	--	--	(4)	2	(4)	2	31
Luxembourg	--	--	--	1	--	1	9
Malaysia	--	--	(4)	--	4	4	19
Mexico	--	--	--	--	52	52	270
Netherlands	--	--	--	--	10	10	116
New Zealand	--	--	--	--	--	--	3
Philippines	--	--	--	--	1	1	21
Poland	--	--	--	--	(4)	(4)	2
Singapore	--	--	1	(4)	(4)	1	17
Slovakia	--	--	--	--	(4)	(4)	5
South Africa	--	--	--	--	--	--	57
Spain	--	--	(4)	(4)	3	3	32
Sweden	--	--	(4)	5	1	5	227
Switzerland	--	--	(4)	--	(4)	(4)	12
Taiwan	--	--	5	--	18	23	300
Thailand	--	--	--	1	--	1	2
Turkey	--	--	(4)	--	--	(4)	3
United Kingdom	--	--	12	2	1	15	573
Other	--	--	--	(4)	1	2	13
Total	(4)	--	107	37	147	292	4,390
Total, year to date	20	99	1,130	1,700	1,440	4,390	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 1/2 unit.

Note: Estimated exports of waste and scrap in December 2003 totaled 142 metric tons, tungsten content, to give a year-to-date total of 702 metric tons, tungsten content.

Source: U.S. Census Bureau.