

Mineral Industry Surveys

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TUNGSTEN IN MAY 2002

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 12% lower during January through May 2002 than net production during the same period in 2001, 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 May 2002 was basically the same as that consumed during the first 5 months of 2001. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for May 2002 will be published in a subsequent issue.

Note

All data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated by using unrounded data.

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 June 1-30, 2002, are as follows:

Low—\$32/metric ton unit WO₃ (\$29/short ton unit WO₃)
High—\$45/metric ton unit WO₃ (\$41/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production 4/	Reported consumption 5/	Stocks, end of period	
			Industry 2/	U.S. Government 3/				Industry 6/	U.S. Government 3/
2001: p/									
May	W	302	W	32,300	461	866	717	1,030	1,610
June	W	288	W	32,300	488	904	691	1,040	1,540
July	W	275	W	32,300	544	735	759	909	1,490
August	W	247	W	32,100	510	781	712	851	1,440
September	W	246	W	32,100	402	788	732	813	1,410
October	W	389	W	NA	449	584	769	693	NA
November	W	149	W	NA	372	696	742	676	NA
December	W	253	W	NA	350	573	672	699	NA
January-December	W	2,680	XX	XX	5,660	9,520	8,960	XX	XX
2002:									
January	W	207	W	NA	330	759	773 r/	686	NA
February	W	79	W	NA	330	811	779 r/	693	NA
March	W	212	W	NA	258	750	764 r/	640	NA
April	W	292	W	NA	401	822	767 r/	667	NA
May	W	NA	W	NA	410	768	752	679	NA
Total	W	NA	XX	XX	1,730	3,910	3,830	XX	XX

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Reported by consumers.

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

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

5/ Includes estimates and scrap.

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

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
2001: p/			
May	W	W	119
June	W	913	88
July	W	726	100
August	W	835	140
September	W	W	97
October	W	721	179
November	W	619	W
December	W	481	W
January-December 3/	W	7,020	XX
2002:			
January	W	621	W
February	W	814	118
March	W	653	W
April	W	750	W
May	W	651	103
Total	W	3,490	XX

p/ Preliminary. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Producers and consumers.

3/ Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product 3/	Net production 2/				Stocks at end of period		
	2001 p/	2002		Year to date	2002		
		April	May		2001 p/	April	May
Metal powder	5,190	471	439	2,270	367	337	356
Tungsten carbide powder (made from metal powder)	4,330	351	329	1,640	332	330	323
Total	9,520	822	768	3,910	699	667	679

p/ Preliminary.

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

2/ Gross production less quantity used to make other products in table.

3/ Data 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	April	May	Year to date
Steels	37	36	198
Superalloys	27	29	142
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	474 r/	460	2,330
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	230 r/	227	1,160
Total	767 r/	752	3,830

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

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

3/ Includes estimates.

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

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

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS 1/

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials 2/	Total
Consumption:						
2001: p/						
May r/	30	171	473	50	6	730
June r/	29	157	476	35	6	704
July r/	30	215	471	50	6	772
August r/	36	154	474	39	6	710
September r/	28	196	474	40	6	745
October r/	22	218	471	50	6	767
November	23	204	474	48	6	755
December	22	145	473	39	6	684
January-December	334	2,350	5,680	524	73	8,960
2002:						
January	39	222	466	38	8	773
February	40	230	473	26	11	779
March	40	223	464	28	8	764
April	35	220	479	25	8	767
May	35	217	464	28	8	752
Total	189	1,110	2,350	145	44	3,840
Stocks:						
2001: p/						
May	24	32	521	38	9	625
June	14	30	588	45	9	685
July	36	30	573	38	9	687
August	29	29	509	45	9	621
September	36	30	536	38	9	648
October	41	33	553	40	9	677
November	40	32	539	45	9	665
December	37	33	596	43	9	717
2002:						
January	42	16	499	27	11	595
February	36	13	491	33	11	584
March	33	16	498	32	11	590
April	32	20	491	36	11	592 r/
May	28	18	495	34	11	586

p/ Preliminary. r/ Revised.

1/ Includes estimates.

2/ Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(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
2001 p/	2,680	2,720	352	947	932	2,120	9,750	XX
2002:								
February	79	67	72	71	69	22	381	1,150
March	212	119	128	77	57	65	657	1,800
April:								
Australia	--	--	--	--	--	(3/)	(3/)	(3/)
Austria	--	--	--	--	(3/)	1	1	17
Belgium	--	--	--	(3/)	--	(3/)	(3/)	1
Bolivia	26	--	--	--	--	--	26	183
Canada	199	--	--	(3/)	44	--	243	456
China	--	289	15	5	17	19	344	1,370
Czech Republic	--	--	--	--	--	--	--	(3/)
France	--	--	--	3	(3/)	(3/)	3	6
Germany	--	--	--	4	13	9	26	118
Hong Kong	--	--	--	--	--	(3/)	(3/)	19
Hungary	--	--	--	--	--	(3/)	(3/)	1
India	--	--	--	--	--	1	1	23
Israel	--	--	--	4	17	1	22	69
Italy	--	--	--	--	(3/)	--	(3/)	1
Japan	--	--	--	1	--	1	2	13
Korea, Republic of	--	--	--	6	--	--	6	33
Luxembourg	--	--	--	--	--	--	--	(3/)
Malaysia	--	--	--	--	--	--	--	(3/)
Netherlands	--	--	--	--	--	(3/)	(3/)	(3/)
Peru	--	--	--	--	--	--	--	9
Portugal	59	--	--	--	--	--	59	174
Russia	--	24	--	--	--	(3/)	24	42
Singapore	--	--	--	--	--	2	2	2
Spain	--	--	--	--	--	(3/)	(3/)	(3/)
Sweden	--	--	--	--	--	(3/)	(3/)	6
Switzerland	--	--	--	--	--	(3/)	(3/)	(3/)
Taiwan	--	--	--	--	--	(3/)	(3/)	(3/)
Uganda	7	--	--	--	--	--	7	7
United Kingdom	--	--	--	20	--	(3/)	20	40
Total	292	313	15	42	92	35	789	2,590
Total, year to date	789	795	228	235	283	261	2,590	XX

p/ Preliminary. -- Zero.

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

2/ Includes 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.

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in April 2002 totaled 74 metric tons, tungsten content, to give a year-to-date total of 279 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(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
2001 p/	220	257	569	1,950	1,120	4,110	XX
2002:							
February	6	21	30	56	84	196	538
March	9	23	35	192	59	318	856
April:							
Australia	--	--	(4/)	--	3	3	7
Austria	--	--	--	--	(4/)	(4/)	2
Belgium	--	--	--	--	3	3	12
Brazil	--	--	1	1	(4/)	2	9
Canada	--	--	3	14	15	32	114
China 5/	--	--	(4/)	--	1	1	3
Colombia	--	--	--	(4/)	(4/)	(4/)	3
Czech Republic	--	--	--	--	--	--	11
France	--	--	1	1	6	7	31
Germany	1	--	22	30	23	76	321
Hong Kong	--	--	--	--	--	--	4
Hungary	--	--	--	--	(4/)	(4/)	5
India	--	--	(4/)	2	(4/)	2	6
Indonesia	--	--	--	(4/)	(4/)	(4/)	1
Ireland	--	--	--	1	(4/)	1	3
Israel	--	--	--	--	1	1	6
Italy	--	--	(4/)	(4/)	(4/)	(4/)	10
Japan	1	--	3	3	(4/)	7	41
Korea, Republic of	--	--	--	6	(4/)	6	20
Luxembourg	--	--	--	1	--	1	1
Malaysia	--	--	(4/)	--	--	(4/)	(4/)
Mexico	--	--	3	--	41	44	98
Netherlands	--	--	--	--	(4/)	(4/)	83
New Zealand	--	--	--	(4/)	(4/)	1	2
Peru	--	--	(4/)	--	--	(4/)	(4/)
Philippines	--	--	--	--	7	7	8
Singapore	--	--	(4/)	(4/)	(4/)	1	6
South Africa	--	--	--	--	--	--	2
Spain	--	--	--	--	--	--	3
Sweden	--	--	--	31	(4/)	31	76
Switzerland	--	--	(4/)	--	(4/)	(4/)	2
Taiwan	--	--	(4/)	5	4	10	33
Thailand	--	--	--	1	--	1	2
Turkey	--	--	--	--	--	--	1
United Kingdom	6	--	3	4	(4/)	13	180
Other	--	--	(4/)	(4/)	(4/)	(4/)	(4/)
Total	8	--	38	100	107	252	1,110
Total, year to date	37	44	158	449	420	1,110	XX

p/ Preliminary. XX Not applicable. -- Zero.

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

2/ Tungsten content estimated from reported gross weight.

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

4/ Less than 1/2 unit.

5/ Includes Macau.

Note: Estimated exports of waste and scrap in April 2002 totaled 39 metric tons, tungsten content, to give a year-to-date total of 104 metric tons, tungsten content.

Source: U.S. Census Bureau.