

Mineral Industry Surveys

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TUNGSTEN IN OCTOBER 2002

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 25% higher during January through October 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 October 2002 was 17% higher than consumption during the first 10 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 October 2002 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 November 1-30, 2002, are as follows:

Low—\$32/metric ton unit WO_3 (\$29/short ton unit WO_3)
High—\$45/metric ton unit WO_3 (\$41/short ton unit WO_3)

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:										
October	W	389	W	NA	449	584	767 r/	693	NA	
November	W	149	W	NA	372	696	755 r/	676	NA	
December	W	253	W	31,200 e/	350	573	684 r/	699	1,120 e/	
January-December	W	2,680	XX	XX	5,660	9,520	8,960	XX	XX	
2002:										
January	W	207	W	NA	342	759	781	686	NA	
February	W	79	W	NA	341	811	788	693	NA	
March	W	212	W	NA	270	750	772	640	NA	
April	W	292	W	NA	421	743	776	667	NA	
May	W	292	W	NA	393	1,040	949	650	NA	
June	W	439	W	31,200	351	1,080	924	662	1,100	
July	W	362	W	30,400	346	960	949	603	1,020	
August	W	418	W	30,500	230	1,120	951	631	987	
September	W	341	W	30,100	242	1,140	970	635	981	
October	W	NA	W	30,100	258	1,150	965	668	975	
Total	W	NA	XX	XX	3,190	9,550	8,830	XX	XX	

e/ Estimated. 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:			
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	830	W
May	W	798	W
June	W	893	103
July	W	798	161
August	W	862	W
September	W	892	107
October	W	852	102
Total	W	8,010	XX

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	2002		Year to date	2001	2002	
		September	October			September	October
Metal powder	5,190	794	802	6,220	367	328	363
Tungsten carbide powder (made from metal powder)	4,330	342	347	3,330	332	307	305
Total	9,520	1,140	1,150	9,550	699	635	668

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	September	October	Year to date
Steels	35	35	365
Superalloys	31	36	364
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	477	465	4,670
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	427	428	3,430
Total	970	965	8,830

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:						
October	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	37	222	466	50	6	781
February	38	230	473	37	9	788
March	38	223	465	40	6	772
April	34	220	479	36	6	776
May	33	W	465	W	6	949
June	33	W	471	W	6	924
July	34 r/	W	467	W	6	949
August	32	W	464	W	6	951
September	33	W	476	W	6	970
October	34	W	468	W	6	965
Total	347	W	4,700	W	64	8,830
Stocks:						
2001:						
October	41	33	553	40	9	677
November	40	32	539	45	9	665
December	37	33	596	43	9	717
2002:						
January	42	32	548	36	9	666
February	36	29	540	41	9	655
March	33	32	547	40	9	661
April	32	36	540	45	9	663
May	28	34	544	43	9	657
June	34	40	552	42	9	677
July	28 r/	39	546	36	9	657 r/
August	27	36	547	39	9	658
September	23	33	544	34	9	642
October	29	34	536	42	9	649

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	Ferrotungsten	Metal powder	Tungsten carbide powder	Other 2/	Total	Total year to date
2001	2,680	2,720	352	947	932	2,120	9,750	XX
2002:								
July	362	189	30	37	96	190	903	5,280
August	418	47	30	85	85	160	825	6,100
September:								
Armenia	--	--	--	--	--	--	--	8
Australia	--	--	--	--	--	1	1	1
Austria	--	--	--	--	(3/)	2	2	38
Belgium	--	--	--	1	--	(3/)	1	3
Bolivia	46	--	--	--	--	--	46	377
Canada	240	--	--	1	15	(3/)	256	1,800
China	--	96	30	11	16	118	270	3,110
Czech Republic	--	--	--	--	--	--	--	(3/)
France	--	--	--	(3/)	(3/)	(3/)	(3/)	10
Germany	--	20	--	5	(3/)	3	28	323
Hong Kong	31	--	--	--	--	1	32	98
Hungary	--	--	--	--	--	(3/)	(3/)	1
India	--	--	--	--	--	(3/)	(3/)	23
Indonesia	--	--	--	--	--	(3/)	(3/)	(3/)
Ireland	--	--	--	--	--	--	--	(3/)
Israel	--	--	--	--	6	1	7	159
Italy	--	--	--	--	--	--	--	1
Japan	--	15	--	1	(3/)	2	19	105
Korea, Republic of	--	--	--	5	2	--	7	82
Luxembourg	--	--	--	--	--	--	--	12
Malaysia	--	--	--	--	--	--	--	(3/)
Mexico	--	--	--	--	--	--	--	(3/)
Mongolia	--	--	--	--	--	--	--	12
Netherlands	--	--	--	--	--	(3/)	(3/)	(3/)
Pakistan	--	--	--	--	--	--	--	25
Peru	5	--	--	--	--	--	5	32
Portugal	20	--	--	--	--	--	20	405
Russia	--	--	--	--	--	1	1	44
Singapore	--	--	--	--	--	1	1	20
South Africa	--	--	--	--	--	--	--	4
Spain	--	--	--	--	--	(3/)	(3/)	(3/)
Sweden	--	--	--	--	--	(3/)	(3/)	12
Switzerland	--	--	--	--	(3/)	(3/)	(3/)	(3/)
Taiwan	--	--	--	--	--	--	--	(3/)
Uganda	--	--	--	--	--	--	--	23
United Kingdom	--	--	--	20	--	(3/)	20	81
Vietnam	--	--	--	--	--	--	--	18
Total	341	130	30	44	40	131	717	6,820
Total, year to date	2,640	1,850	392	507	635	798	6,820	XX

-- 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 September 2002 totaled 38 metric tons, tungsten content, to give a year-to-date total of 610 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	220	257	569	1,950	1,120	4,110	XX
2002:							
July	6	8	53	116	54	237	1,770
August	3	13	27	169	93	305	2,070
September:							
Australia	--	--	2	2	--	3	16
Austria	--	--	--	--	--	--	3
Belgium	--	--	(4/)	(4/)	1	1	25
Brazil	--	--	3	--	12	15	50
Canada	--	--	2	3	6	12	199
China 5/	--	--	--	--	2	2	30
Colombia	--	--	--	(4/)	(4/)	(4/)	4
Czech Republic	--	--	--	--	--	--	11
France	--	--	2	6	10	18	72
Germany	--	--	27	6	3	36	550
Hong Kong	--	--	--	--	(4/)	(4/)	9
Hungary	--	--	--	--	(4/)	(4/)	5
India	--	--	(4/)	--	4	4	19
Indonesia	--	--	--	(4/)	(4/)	(4/)	2
Ireland	--	--	--	1	--	1	9
Israel	--	--	(4/)	--	3	3	32
Italy	--	--	1	(4/)	(4/)	1	24
Japan	--	--	2	1	17	20	104
Korea, Republic of	(4/)	--	2	2	(4/)	4	38
Luxembourg	--	--	(4/)	--	--	(4/)	5
Malaysia	--	--	--	--	--	--	4
Mexico	(4/)	--	--	--	6	7	141
Netherlands	--	--	--	--	(4/)	(4/)	119
New Zealand	--	--	--	--	--	--	4
Peru	--	--	--	--	--	--	2
Philippines	--	--	--	--	--	--	13
Singapore	--	--	(4/)	(4/)	(4/)	1	13
South Africa	--	--	--	--	--	--	2
Spain	--	--	1	(4/)	1	2	12
Sweden	--	--	(4/)	--	(4/)	1	149
Switzerland	--	--	(4/)	--	(4/)	(4/)	5
Taiwan	--	--	--	(4/)	20	20	99
Thailand	--	--	--	--	--	--	3
Turkey	--	--	--	--	--	--	2
Ukraine	--	--	--	--	--	--	1
United Kingdom	4	--	2	47	20	72	516
Other	--	--	(4/)	--	1	1	4
Total	4	--	43	69	109	225	2,300
Total, year to date	66	65	352	1,000	816	2,300	XX

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 September 2002 totaled 20 metric tons, tungsten content, to give a year-to-date total of 309 metric tons, tungsten content.

Source: U.S. Census Bureau.