

BISMUTH STATISTICS¹
U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) bismuth content unless otherwise noted]

Last modification: November 27, 2012

Year	Production	Imports	Exports	Stocks	Reported consumption	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900	W	81.8	NA	NA	NA	82	4,960	97,000	NA
1901	W	74.9	NA	NA	NA	75	3,970	78,000	NA
1902	W	86.6	NA	NA	NA	87	3,310	62,000	NA
1903	W	66.8	NA	NA	NA	67	3,310	60,000	NA
1904	W	84.3	NA	NA	NA	84	3,310	60,000	NA
1905	W	67.4	NA	NA	NA	67	2,820	51,000	NA
1906	W	116	NA	NA	NA	120	2,760	50,000	NA
1907	W	118	NA	NA	NA	120	2,760	48,000	NA
1908	W	74.7	NA	NA	NA	75	3,860	70,000	NA
1909	W	83.2	NA	NA	NA	83	3,860	70,000	NA
1910	W	89.9	NA	NA	NA	90	4,250	75,000	NA
1911	W	78.1	NA	NA	NA	78	4,700	82,000	NA
1912	W	82.9	NA	NA	NA	83	4,480	76,000	722
1913	W	53.4	NA	NA	NA	53	4,410	72,700	922
1914	W	41.1	NA	NA	NA	41	6,350	104,000	1,050
1915	W	20.1	NA	NA	NA	20	6,350	102,000	1,770
1916	W	34.8	NA	NA	NA	35	8,000	120,000	1,670
1917	W	31.4	NA	NA	136	136	7,560	96,300	907
1918	W	61.6	NA	NA	136	136	7,560	81,600	992
1919	W	26.1	NA	NA	NA	26	6,790	64,000	833
1920	W	33.0	NA	NA	NA	33	5,620	45,800	817
1921	W	42.7	NA	NA	NA	43	4,300	39,200	274
1922	W	55.1	NA	NA	NA	55	4,370	42,400	NA
1923	W	28.4	NA	NA	NA	28	5,510	52,500	NA
1924	W	8.39	NA	NA	NA	8.4	4,480	42,700	NA
1925	W	45.2	NA	NA	NA	45	4,410	41,100	NA
1926	W	30.6	NA	NA	NA	31	6,680	61,500	NA
1927	W	21.6	NA	NA	NA	22	5,070	47,500	NA
1928	W	18.8	NA	NA	NA	19	4,370	41,700	NA
1929	W	17.0	NA	NA	NA	17	3,750	35,700	NA
1930	W	11.1	NA	NA	NA	11	2,980	29,100	NA
1931	W	3.50	NA	NA	NA	3.5	2,760	29,600	NA
1932	W	14.0	NA	NA	NA	14	1,870	22,300	NA
1933	W	13.0	NA	NA	NA	13	2,380	29,800	NA
1934	W	8.77	NA	NA	NA	8.8	2,650	32,200	NA
1935	W	47.0	NA	NA	NA	47	2,310	27,500	NA
1936	W	52.0	NA	NA	NA	540	2,200	25,800	NA
1937	W	32.0	NA	NA	NA	540	2,200	24,900	700
1938	W	43.0	NA	NA	NA	540	2,310	26,700	1,000
1939	W	82.9	NA	NA	NA	540	2,430	28,500	1,300
1940	W	56.2	NA	NA	NA	540	2,760	32,100	1,400
1941	W	101	268	120	NA	540	2,760	30,600	1,400
1942	W	101	131	160	1,130	1,130	2,760	27,600	1,700
1943	W	218	42.0	378	909	909	2,760	26,000	1,400
1944	W	188	56.0	435	665	665	2,760	25,600	1,200
1945	W	151	52.0	346	742	742	2,760	25,000	1,100
1946	W	192	69.0	266	603	603	3,170	26,500	940
1947	W	141	109	54.0	NA	700	4,370	31,900	1,500
1948	W	136	160	42.0	NA	710	4,410	29,800	1,500
1949	W	246	86.6	52.0	NA	720	4,410	30,200	1,500
1950	W	354	90.4	63.0	NA	730	4,540	30,700	1,400

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1951	W	239	66.7	88.6	788	788	4,960	31,100	1,770
1952	W	321	111	95.9	805	805	4,960	30,500	1,770
1953	W	291	57.6	75.6	711	711	4,960	30,300	2,090
1954	W	292	62.5	115	653	653	4,960	30,100	1,680
1955	W	270	92.4	106	702	702	4,960	30,200	1,910
1956	W	416	130	104	686	686	4,960	29,700	2,400
1957	W	385	71.8	170	733	733	4,960	28,800	2,270
1958	W	289	143	248	564	564	4,960	28,000	2,090
1959	W	207	81.5	214	725	725	4,960	27,800	2,270
1960	W	529	71.0	165	693	693	4,960	27,300	2,400
1961	W	362	144	147	671	671	4,960	27,000	2,590
1962	W	370	159	203	866	866	4,960	26,800	3,040
1963	W	510	16.0	194	987	987	4,960	26,400	2,530
1964	W	562	27.8	298	980	980	5,070	26,700	2,890
1965	W	625	155	230	1,330	1,330	7,560	39,100	2,960
1966	W	763	40.5	296	1,450	1,450	8,820	44,400	3,110
1967	W	626	69.3	299	1,140	1,140	8,820	43,000	3,380
1968	W	574	54.6	282	1,070	1,070	8,820	41,300	3,770
1969	W	406	203	271	1,150	1,150	10,200	45,300	3,760
1970	W	453	413	327	1,000	1,000	13,200	55,500	3,720
1971	W	385	32.3	502	748	748	11,600	46,700	3,830
1972	W	709	120	325	1,050	1,050	8,000	31,200	4,000
1973	W	1,220	68.5	245	1,320	1,320	11,600	42,600	3,720
1974	W	859	150	271	1,040	1,040	20,400	67,400	4,820
1975	W	604	58.5	205	638	638	18,200	55,100	3,980
1976	W	1,060	31.1	219	1,090	1,090	16,500	47,300	3,940
1977	W	913	43.2	198	1,080	1,080	13,300	35,800	4,480
1978	W	1,210	43.7	355	1,140	1,140	7,450	18,600	4,250
1979	W	983	194	286	1,240	1,240	6,640	14,900	3,420
1980	W	1,010	58.4	306	1,040	1,040	5,820	11,500	3,610
1981	W	1,100	35.8	231	1,090	1,090	5,560	9,970	3,750
1982	W	919	24.0	246	851	851	3,550	6,000	4,110
1983	W	894	139	262	1,040	1,040	3,790	6,200	3,980
1984	W	884	142	218	1,200	1,200	9,410	14,800	3,480
1985	W	907	122	230	1,200	1,200	11,400	17,300	4,410
1986	W	1,130	42.0	346	1,320	1,320	7,170	10,700	3,660
1987	W	1,580	38.0	294	1,600	1,600	8,050	11,600	3,170
1988	W	1,640	147	433	1,530	1,530	12,700	17,500	3,220
1989	W	1,880	122	440	1,350	1,350	12,700	16,700	3,650
1990	W	1,610	122	331	1,120	1,120	7,850	9,790	3,440
1991	W	1,410	75.0	247	1,260	1,260	6,610	7,910	3,230
1992	W	1,620	90.0	272	1,300	1,300	5,860	6,810	2,870
1993	W	1,330	70.0	323	1,300	1,300	5,510	6,220	3,550
1994	W	1,660	160	402	1,490	1,490	7,170	7,890	3,410
1995	W	1,450	261	390	2,150	2,150	8,490	9,080	3,430
1996	W	1,490	151	122	1,520	1,520	8,050	8,360	3,600
1997	0	2,170	206	213	1,530	1,530	7,720	7,840	4,490
1998	0	2,720	245	175	1,990	1,990	7,940	7,940	3,990
1999	0	2,110	257	121	2,050	2,050	8,490	8,310	5,490
2000	0	2,410	491	118	2,130	2,130	8,160	7,720	3,760
2001	0	2,220	541	95	2,200	1,700	8,250	7,590	4,420

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2002	0	1,930	131	111	2,320	1,780	6,920	6,270	4,600
2003	0	2,320	108	279	2,120	2,040	6,330	5,610	5,100
2004	0	1,990	109	167	1,880	2,130	7,390	6,370	5,600
2005	0	2,530	142	175	2,390	2,460	8,620	7,190	5,400
2006	0	2,300	311	120	1,960	2,120	11,100	8,980	5,800
2007	0	3,070	421	139	2,630	2,740	31,000	24,400	6,400
2008	0	1,930	375	228	1,080	1,560	28,100	21,200	7,700
2009	0	1,250	397	134	820	1,010	17,300	13,100	7,600
2010	0	1,620	1,040	134	884	660	19,300	13,900	7,800
2011	0	1,750	1,030	138	715	796	25,300	18,300	8,300

NA Not available. W Withheld to avoid disclosing company proprietary data.

¹Compiled by D.A. Buckingham (retired) and J.F. Carlin, Jr.

Data are calculated, estimated, or reported. See notes for more information.

Bismuth Worksheet Notes

Data Sources

Sources of data for the bismuth worksheet are the mineral statistics publications of the former U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR), and Metal Prices in the United States Through 1998 (MP98). Years of publication and corresponding years of data coverage are listed in the References section below.

Production

Domestic primary bismuth production ceased in 1997. Primary bismuth production data prior to 1997 and secondary production data are withheld in order to avoid disclosing proprietary data.

Imports

Data are bismuth metal imported into the United States. Data are from the MR and the MYB.

Exports

Data are bismuth metal and bismuth content of alloys, waste, and scrap exported from the United States. Prior to 1941 exports are assumed to be negligible or zero, data are not available. Datum for 1941 is for a partial year, July to December, inclusive. Data are from the MR and the MYB.

Stocks

Stocks data are not available prior to 1941. Stocks for 1941–46 are government metal stocks as of end of year, December 31. Government metal stocks were completely dispersed in 1946. Data for 1947–68 are both consumer and dealer stocks as of end of year, December 31. For 1969 to the most recent year, stocks are consumer stocks only, as of end of year, December 31. Data are from the MR and the MYB.

Reported Consumption

Reported consumption data are published for 1917–18, 1942–46, and 1951 to the most recent year. Reported consumption data are substituted when apparent consumption data are not available. Data were from the MR and the MYB.

Apparent Consumption

Primary, byproduct, or secondary domestic production is not disclosed for proprietary reasons. Prior to 1941 exports are assumed to be negligible or zero, data are not available. There is no information available to assess changes in stocks levels prior to 1941. Import data for 1900–16 and 1919–35 were rounded to two significant figures and used in the absence of data for calculating apparent consumption. For 1936–41, apparent consumption was calculated as an average and rounded to two significant figures because apparent consumption was reported as ranging between 454 and 635 tons in each year. Data are from the MR and the MYB. Apparent consumption data was not available for 1947–50. Apparent consumption for these years was estimated by interpolation and rounded to two significant figures. Reported consumption data was used for 1917–18, 1942–46, and 1951–2000 in the absence of apparent consumption data. Apparent consumption data for 2001 to the most recent year were estimated using the equation below. Data are from the MYB.

$$\text{APPARENT CONSUMPTION} = \text{IMPORTS} - \text{EXPORTS} \pm (\text{STOCK CHANGES}).$$

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) apparent consumption of bismuth in current dollars. Unit value data for 1906–98 are estimated based on the bismuth metal market price as reported in the MP98. Data for 1900–05 are the bismuth metal market price. Data for 1999 to the most recent year are the average domestic dealer price for bismuth. Data for 1900–05 and 1999 to the most recent year are from the MR and the MYB.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Production

Data are the bismuth content of world mine production. Data were not available prior to 1912 or for 1922–36. Data for 1912–21 and 1972–2003 exclude U.S. production. Data are from the MR and the MYB. Data for 2004 is an unpublished revision provided by the USGS bismuth commodity specialist.

References

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U.S. Geological Survey, 1999, Metal Prices in the United States through 1998.

Recommended Citation Format:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, accessed [date], at <http://pubs.usgs.gov/ds/2005/140/>.

For more information, please contact:

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